DAEWOO

Service Manual

TFT LCD MONITOR

Model : L500B

DAEWOO ELECTRONICS CO., LTD
OVERSEAS SERVICE DEPT.

TABLE OF CONTENTS

SAFETY PRECAUTIONS

CAUTION

No modifications of any circuit should be attempted. Service work should only be performed after you are thoroughly familiar with all of the following safety check and servicing guidelines.

◆ Fire & Shock Hazard

- In servicing, pay attention to original lead dress especially in the high voltage circuit. if a short circuit is found, replace all parts which have been overheated as a result of the short circuit.
- All the protective devices must be reinstalled per original design.
- Soldering must be inspected for possible cold solder points, frayed leads, damaged insulation, solder splashes or sharp solder points. Be certain to remove all foreign materials.

◆ Implosion Protection

TFT LCD in this monitor employs integral implosion protection system, but care should be taken to avoid damage and scratching during installation.
Use only same type replacement TFT panel.

IMPORTANT SAFETY NOTICE

There are special components used in analog TFT LCD color display, which are important for safety. These parts are shaded on the schematic diagram and on the replacement parts list. It is essential that these critical parts should be replaced with manufacturer's specified parts to prevent X-radiation, shock, fire or other hazards. Do not modify the original design without getting a written permission from DAEWOO ELECTRONICS CO. or this will void the original parts and labor warranty.

GENERAL SAFETY INFORMATION

◆ Terms in the manual

CAUTION Statements identify conditions or practices that could result in damage to the equipment or other property.

WARNING Statements identify conditions or practices that could result in personal injury or loss of life.

◆ Terms as marked on equipment

CAUTION Statements indicate a personal injury hazard not immediately accessible as one reads the marking, or a hazard to properly including the equipment itself.

WARNING Statements indicate a personal injury hazard immediately accessible as one reads the marking

◆ Symbols in the manual

This symbol indicates where applicable cautionary or other information is to be found**.**

◆ Symbols as marked on equipment

Protective GROUND terminal

◆ High Voltage Warning And Critical Component Warning Label

Following warning label is on the backlight outside.

WARNING

This product includes critical mechanical and electrical parts. For continued safety, replace critical components indicated in the service manual only with exact replacement parts given in the parts list. Refer to service manual for measurement procedures and proper service adjustments.

SERVICING PRECAUTIONS

CAUTION
Before servicing instruments covered by this service manual, its supplements and addendum, read and follow the SAFETY PRECAUTIONS of this manual.

NOTE
If unforeseen circumstances create conflict between the following servicing precautions and any of the safety precautions on page 1 of this manual, always follow the safety precautions.
Remember: Safety First.

◆ General Servicing Precautions

1. Always unplug the AC power cord from the AC power source before:
   a. Removing or reinstalling any component, circuit board, module, or any other instrument assembly.
   b. Disconnecting or reconnecting any electrical plug or other electrical connection.
   c. Connecting a test substitute in parallel with an electrolytic capacitor in the instrument.

CAUTION
A wrong part substitution or incorrect polarity installation of electrolytic capacitors may result in a explosion hazard.

2. Do not any spray chemicals on or near this instrument or any or its assemblies.
3. Unless specified otherwise in this service manual, clean electrical contacts by applying the following mixture to the contacts with a pipe cleaner, cotton-tipped stick or comparable nonabrasive applicator: 10% (by volume) Aceton and 90% (by volume) isopropyl alchohol (90%-99% strength).

CAUTION
This is a flammable mixture. Unless specified otherwise in this service manual, lubrication of contacts is not required.

4. Do not apply AC power to this instrument and/or any of its electrical assemblies unless all solid-state device heat sinks are correctly installed.
5. Always connect the test instrument ground lead to the appropriate instrument chassis ground before connecting the test instrument positive lead. Always remove the test instrument ground lead last.
6. Use only the test fixtures specified in this service manual with this instrument.

CAUTION
Do not connect the test fixture ground strap to any heatsink in this instrument.

◆ Electrostatically Sensitive (ES) Devices

Some semiconductor (solid state) devices can be damaged easily by static electricity.
Such components commonly are called Electrostatically Sensitive (ES) Devices.
The examples of typical ES devices are integrated circuits, some field-effect transistors and semiconductor "chip" components. The following techniques should be used to help reduce the incidence of component damage caused by static electricity.

1. Immediately before handling any semiconductor component or semiconductor-equipped assembly, drain off any electrostatic charge on your body by touching a known earth ground. Alternatively, obtain and wear a commercially available discharging wrist strap device which should be removed for potential shock reasons prior to applying power to the unit under test.
2. After removing an electrical assembly equipped with ES devices, place the assembly on a conductive surface such as aluminum foil to prevent electrostatic charge buildup or exposure of the assembly.
3. Use only a grounded-tip soldering iron to solder or unsolder ES devices.
4. Use only an anti-static type solder removal device. Some solder removal devices not classified as "anti-static" can generate enough electrical charges to damage ES devices.
5. Do not use freon-propelled chemicals. These can generate enough electrical charges to damage ES devices.
6. Do not remove a replacement ES device from its protective package until immediately before you are ready to install it. (Most replacement ES devices are packaged with leads electrically shorted together by conductive foam, aluminum foil or comparable conductive material).
7. Immediately before removing the protective material from the leads of a replacement ES device, touch the protective material to the chassis or circuit assembly into which the device will be installed.

CAUTION
Be sure that no power is applied to the chassis or circuit, and observe all other safety precautions.

8. Minimize bodily motions when handling unpackaged replacement ES devices. (Otherwise harmful motion such as the brushing together of your clothes fabric or the lifting of your foot from a carpeted floor can generate enough static electricity to damage an ES devices).

◆ General Soldering Guidelines

1. Use a grounded-tip, low-wattage soldering iron with appropriate tip size and shape that will maintain tip temperature within a 550°F-660°F (288°C-316°C) range.
2. Use an appropriate gauge of RMA resin-core solder composed of 60 parts tin/40 parts lead.
3. Keep the soldering iron tip clean.
4. Throughly clean the surface to be soldered. Use a small wire-bristle (0.5 inch or 1.25cm) brush with a metal handle. Do not use freon-propelled spray-on cleaners.
5. Use the following soldering technique:
   a. Allow the soldering iron tip to reach normal temperature (550°F to 660°F or 288°C to 316°C)
   b. Hold the soldering iron tip and solder strand against the component lead until the solder melts.
   c. quickly move the soldering iron tip to the junction of the component lead and the printed circuit foil, and hold it there only until the solder flows onto and around both the component lead and the foil.
   d. Closely inspect the solder area and remove any excess or splashed solder with a small wire-bristle brush.

CAUTION
Work quickly to avoid overheating the circuit board printed foil.

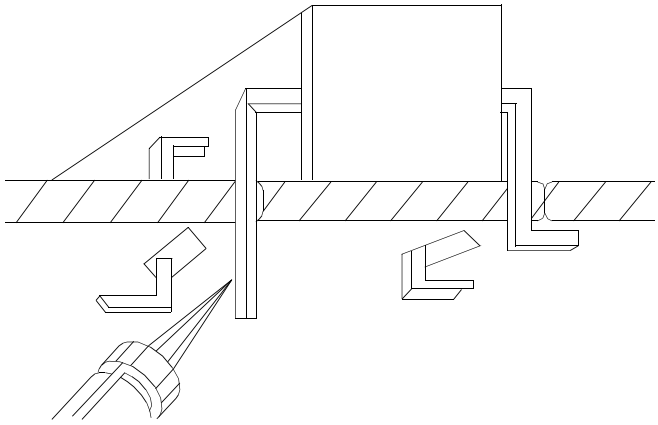


FIGURE1. USE SOLDERING IRON TO PRY LEADS

◆ IC Removal / Replacement

Some utilized chassis circuit boards have slotted (oblong) holes through which the IC leads are inserted and then bent flat against the circuit foil. When holes are slotted, the following technique should be used to remove and replace the IC. When working with boards using the familiar round hole, use the standard technique as outlined in paragraphs 5 on the page under the title of general soldering guidelines.

◆ Removal

1. Desolder and straighten each IC lead in one operation by gently prying up on the lead with the soldering iron tip as the solder melts.
2. Draw away the melted solder with an anti-static suction-type solder removal device (or with desoldering braid before removing the IC.

◆ Replacement

1. Carefully insert the replacement IC in the circuit board.
2. Carefully bend each IC lead against the circuit foil pad and solder it.
3. Clean the soldered areas with a small wire-bristle brush. (It is not necessary to reapply acrylic coating to the area).

◆ "Small-Signal" Discrete Transistor Removal/Replacement

1. Remove the defective transistor by clipping its leads as close as possible to the component body.
2. Bend the end of each of three leads remaining on the circuit board into a "U" shape.
3. Bend the replacement transistor leads into a "U" shape.
4. Connect the replacement transistor leads to the corresponding leads extending from the circuit board and crimp the "U" with long nose pliers to insoure metal-to-metal contact, then solder each connection.

◆ Power IC, Transistor or Devices Removal / Replacement

1. Heat and remove all solders from the device leads.
2. Remove the heatsink mounting screw (if applicable).
3. Carefully remove the device from the circuit board.
4. Insert new device in circuit board.
5. Solder each device lead, and clip off excess lead.
6. Replace heatsink.

◆ Diode Removal / Replacement

1. Remove defective diode by clipping its leads as close as possible to diode body.
2. Bend the two remaining leads perpendicularly to the circuit board.
3. Observing diode polarity, wrap each lead out of the new diode around the corresponding lead on the circuit board.
4. Securely crimp each connection and solder it.
5. Inspect the solder joints of the two "original" leads on the circuit board copper side. If they are not shiny, reheat them and apply additional solder if necessary.

◆TECHNICAL INFORMATION

Electrical	
Pixel pitch	0.3mm X 0.3mm
Horizontal frequency	30KHz to 62KHz (Automatically)
Vertical frequency	50Hz to 85Hz (Automatically)
Operating temperature	10-40°C / 50-104°F
Operating humidity	8-80%
Mechanical	
Cabinet	Molded Plastic Cabinet with attachable tilt & swivel base
Dimension (set with packing)	502(H) X 502(W) X 242(D) mm
Weight(net)	4.5 Kg
Controls	Power Switch OSD control

GENERAL INFORMATION

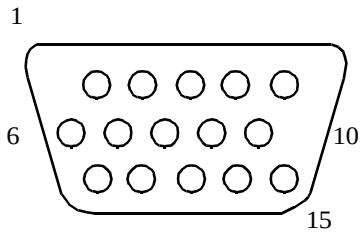
This TFT LCD monitor automatically scans all horizontal frequencies from 30KHz to 62KHz, and all vertical frequencies from 50Hz to 85Hz. This TFT LCD monitor supports IBM PC, PC/XT, PC/AT, personal System/2 (PS/2), Apple Macintosh, and compatible users crisp text and vivid color graphics display when using the following graphics adapters : (VGA, Super VGA, VESA and XGA and Apple Macintosh Video Card). And so, this TFT LCD monitor has a maximum horizontal resolution of 1024 dots and a maximum vertical resolution of 768 lines for superior clarity of display.
By accepting analog signal inputs which level is zero to 0.7 Volts. This TFT LCD monitor can display and 262, 144 colors depending on the graphics adapter and software being used.(available used to 8 bit panel is 16.7M colors)

◆ Abbreviations

ADJ	Adjustment
AFC	Automatic Frequency Control
H.sync	Horizontal Synchronization
OSC	Oscillator
P.S.U	Power Supply Unit
PWA	Printed Circuit Board Wiring Assembly
R.G.B	Red, Green, Blue
V.sync	Vertical Synchronization

PIN CONNECTOR

Pin	Signal
1	Red
2	Green
3	Blue
4	GND
5	GND
6	GND - Red
7	GND - Green
8	GND - Blue
9	+5Vdc
10	GND - H.Sync
11	GND - V.Sync
12	Bi-directional Data (SDA)
13	Horizontal Sync
14	Vertical Sync (VCLK)
15	Data clock (SCL)



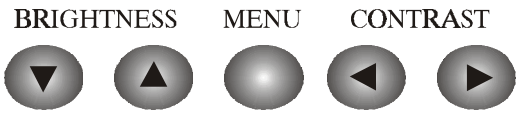
Arrangement of 15-pin D-sub connector

◆CAUTION FOR ADJUSTMENT AND REPAIR

- The white balance adjustment has been done by a color analyzer in factroy. The adjustment procedure, described in the service manual is made by a visual check.
- Allow 20 minutes warm-up time for the display before checking or adjusting only electrical specification or function.
- Reform the leadwire after any repair work.

OPERATION & ADJUSTMENT

◆ Control Panel



- Move cursor to the right window on the OSD window.
- Increase the value of any selected function.

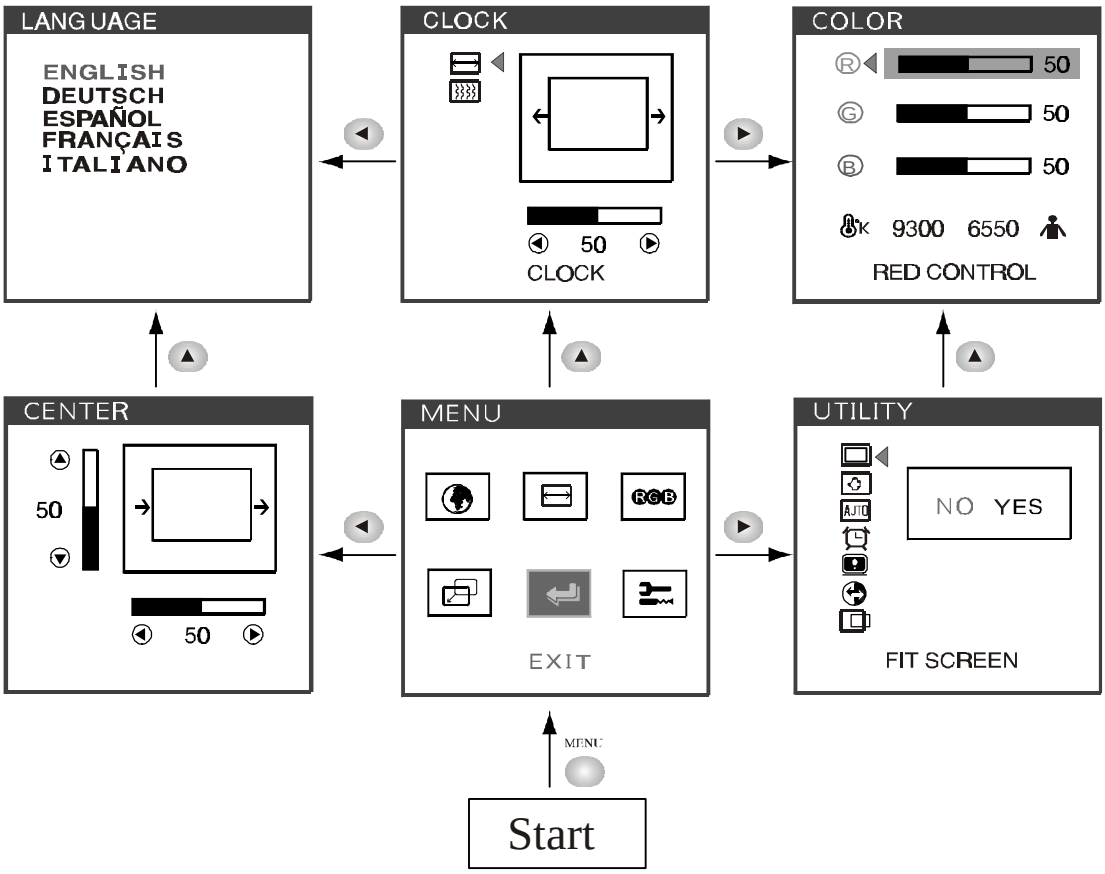
- Move cursor to the left window on the OSD window.
- Decrease the value of any selected function.

- Launch OSD(On-Screen Display) MENU window.

- Move cursor to the high window on the OSD window.
- Increase the value of V.center.

- Move cursor to the low window on the OSD window.
- Decrease the value of V.center.

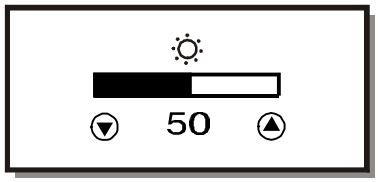
◆ Key Process



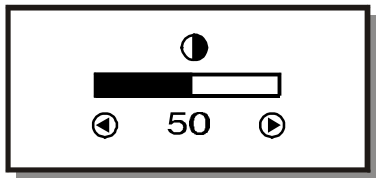
- When you choose the icon ↵ on the OSD window, you can exit the OSD screen.

◆ Hot Key

* HOT KEY

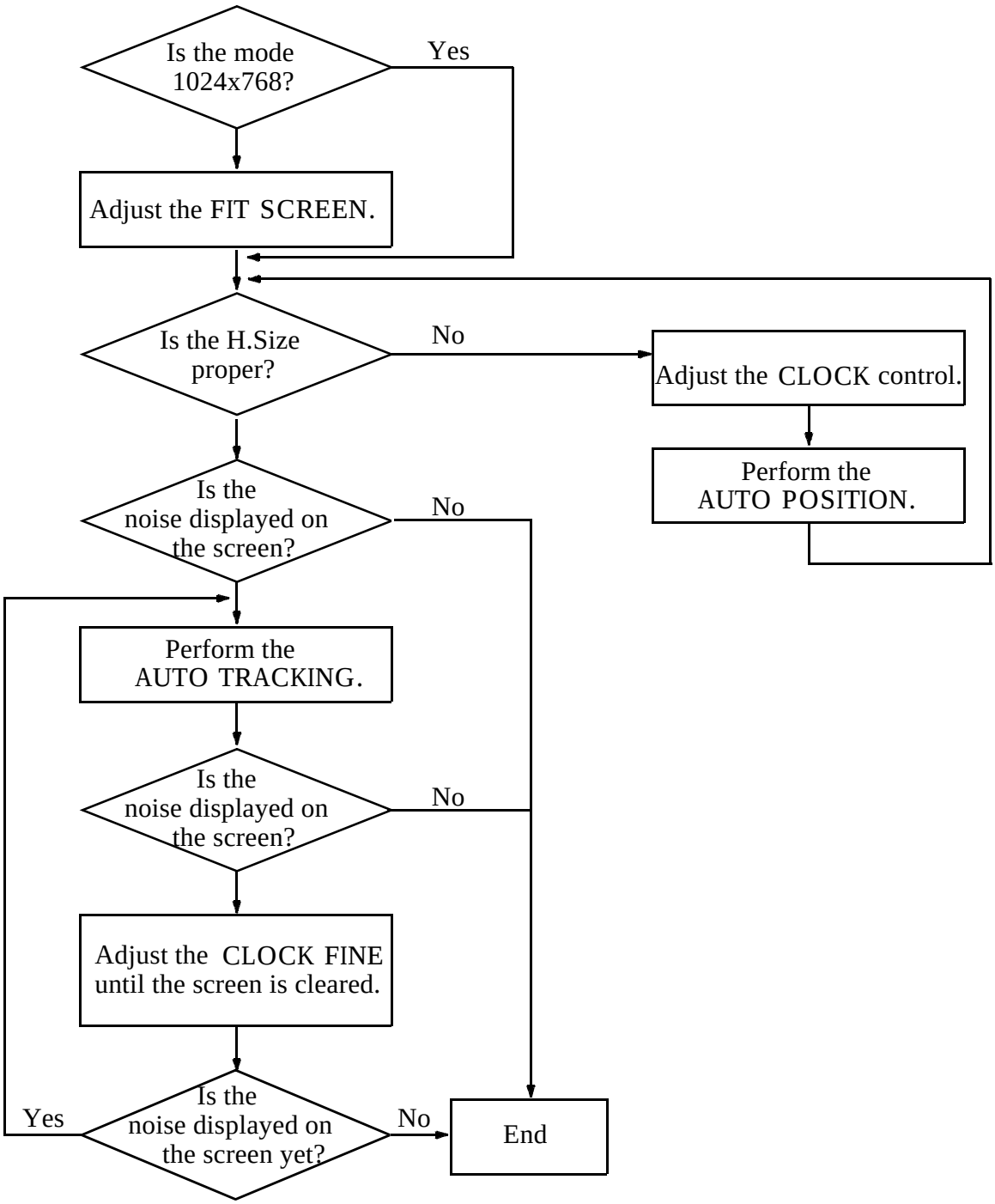


[BRIGTHNESS]



[CONTRAST]

◆ Adjustment procedure



◆ OSD Functions

ICON	CONTROL	FUNCTIONS
	LANGUAGE	Select language for OSD (5 languages).
	CLOCK	Adjust the width (horizontal size) of the screen image.
	CLOCK FINE	Sharpen the focus by aligning the illuminated pixels and adjust until the screen image looks focused, crisp and sharp. Adjusting the CLOCK FINE after the CLOCK adjustment will produce a clear screen.
	COLOR TEMP	Choose different preset color temperatures or set your own customized color parameters.
	RED CONTROL	Adjust the red color.
	GREEN CONTROL	Adjust the green color.
	BLUE CONTROL	Adjust the blue color.
	H.CENTER & V.CENTER	Adjust the position of the display horizontally (left or right) and vertically (up or down).
	FIT SCREEN	Make characters of displayed text easier to read (only for resolutions lower than 1024x768).
	SMART SCALING	Adjust the display image quality (if the screen proceed to scaling up).
	AUTO TRACKING	Adjust the horizontal & vertical picture image quality and size.
	OSD TIME OUT	Adjust the display OSD Menu.
	STATUS	Display horizontal & vertical frequency and polarity.
	RECALL	Reset the screen to the Factory Preset Display Settings.
	AUTO POSITION	Choose automatically the proper horizontal position and vertical position & size of the screen image.

ALIGNMENT PROCEDURE

◆ Standard Check point

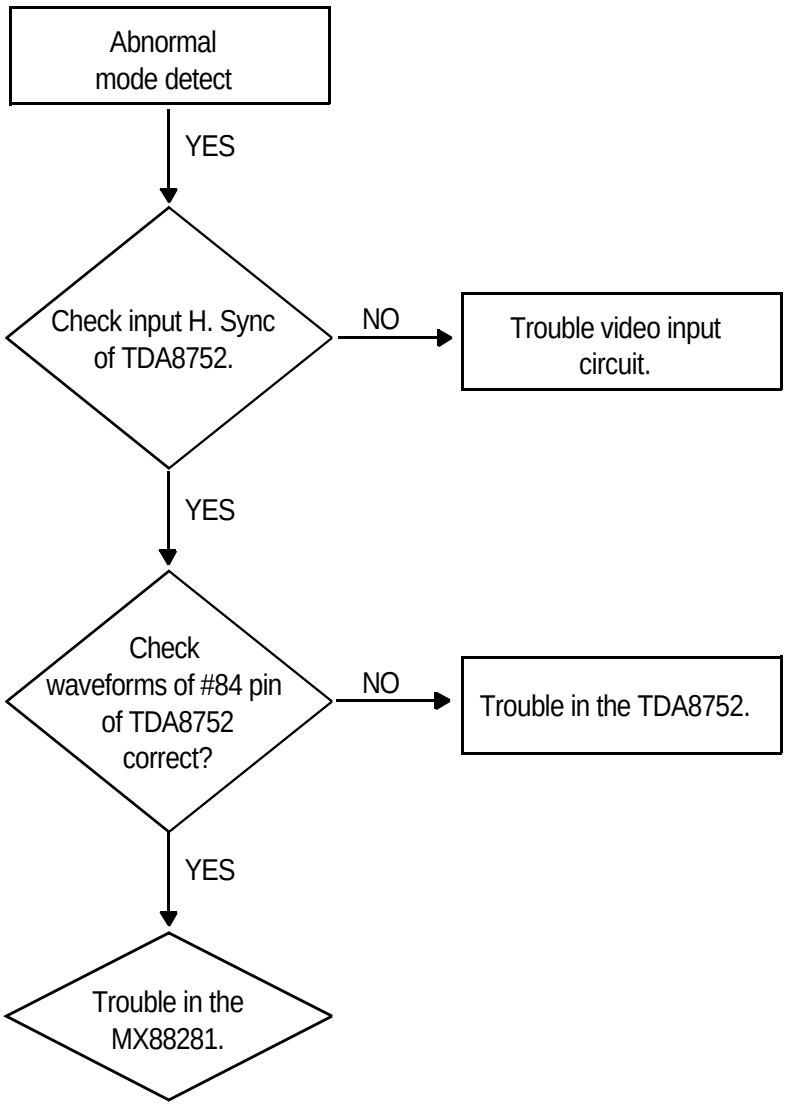
1. Power source : 100-240Vac 50/60Hz
2. Aging: Take at least 20 minutes warm up time.
3. Signal
   Video input :Analog 0.7Vpp 75Ω terminal positive polarity
   Synchronizing : acceptable negative or positive at TTL level
   Resolution
      Horizontal : 1024 max.
      Vertical : 768 max.
   Frequency
      Horizontal :30KHz - 62KHz
      Vertical : 50Hz - 85Hz (available only non interlace mode)

◆ Adjustment

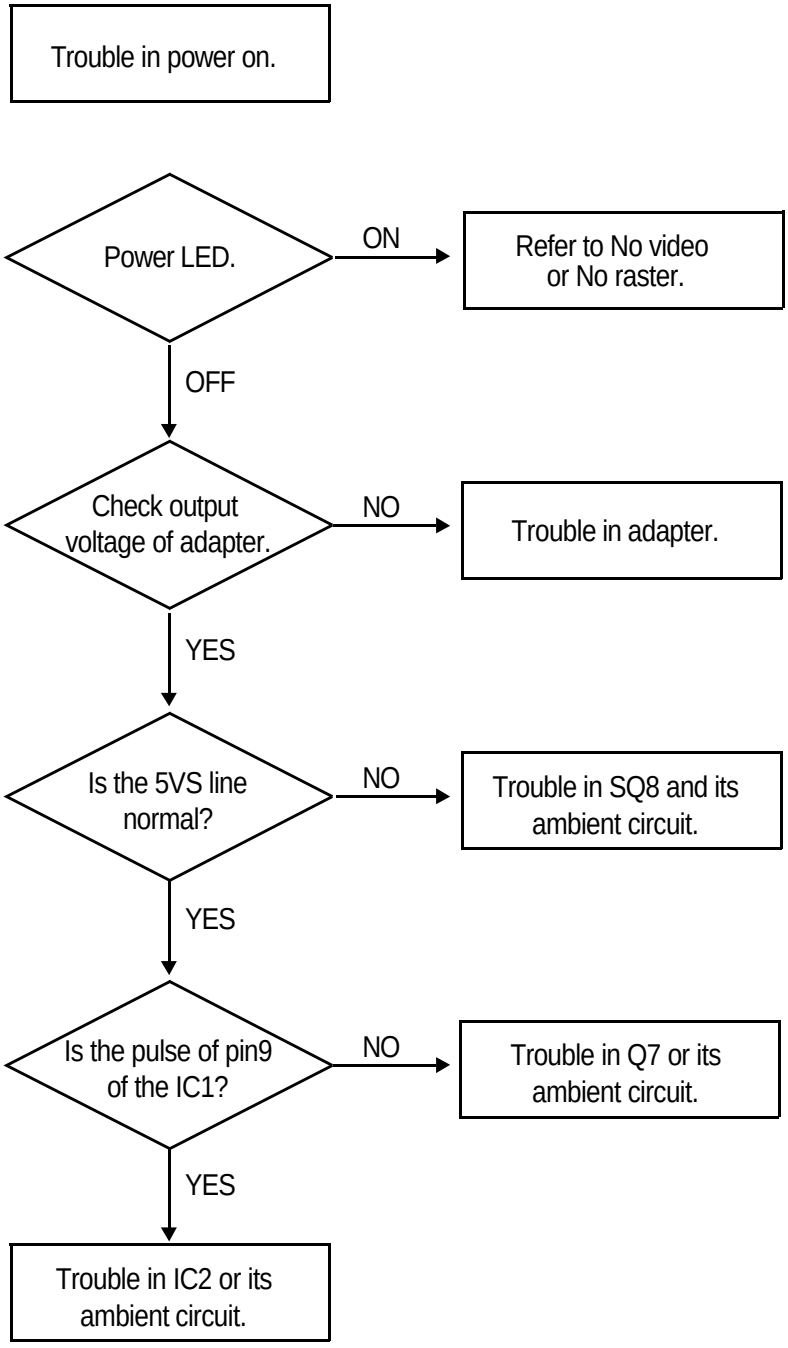
1. Smart scaling set to 50%.
2. Contrast set to 100%.
3. Brightness set to 50%.
4. Switching to factory alignment mode
   Press power key with down menu key(▼) at the power off status.
5. Video level adjustment
   Receive stair pattern of 16 step (doesnt care any mode).
   Readjust coarse R, G, B in TDA8752 menu before saturation point.
6. Set up the tracking
   See the users manual at page 8 th.
7. Switching to users mode
   If turn-off and turn-on then switched to users mode.
   * All of adjusted data stores by fade out of OSD.

TROUBLE SHOOTING HINTS

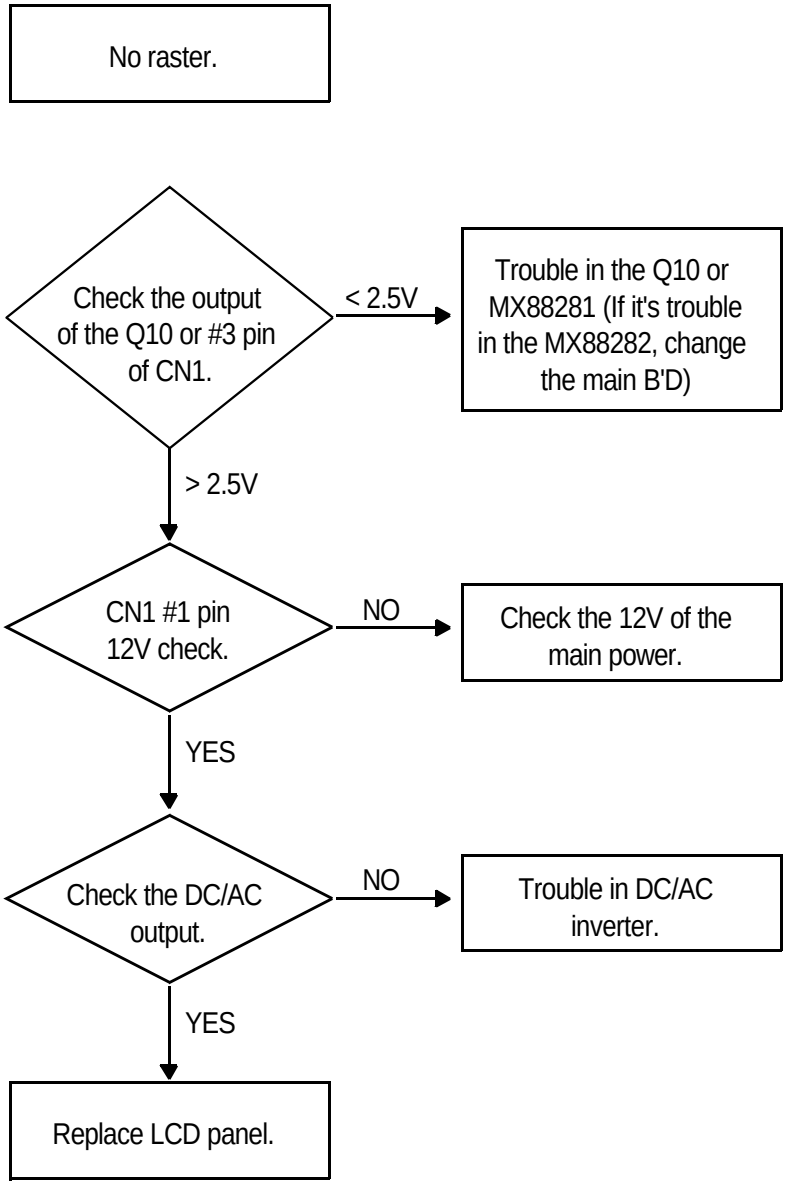
1. Abnormal mode detect



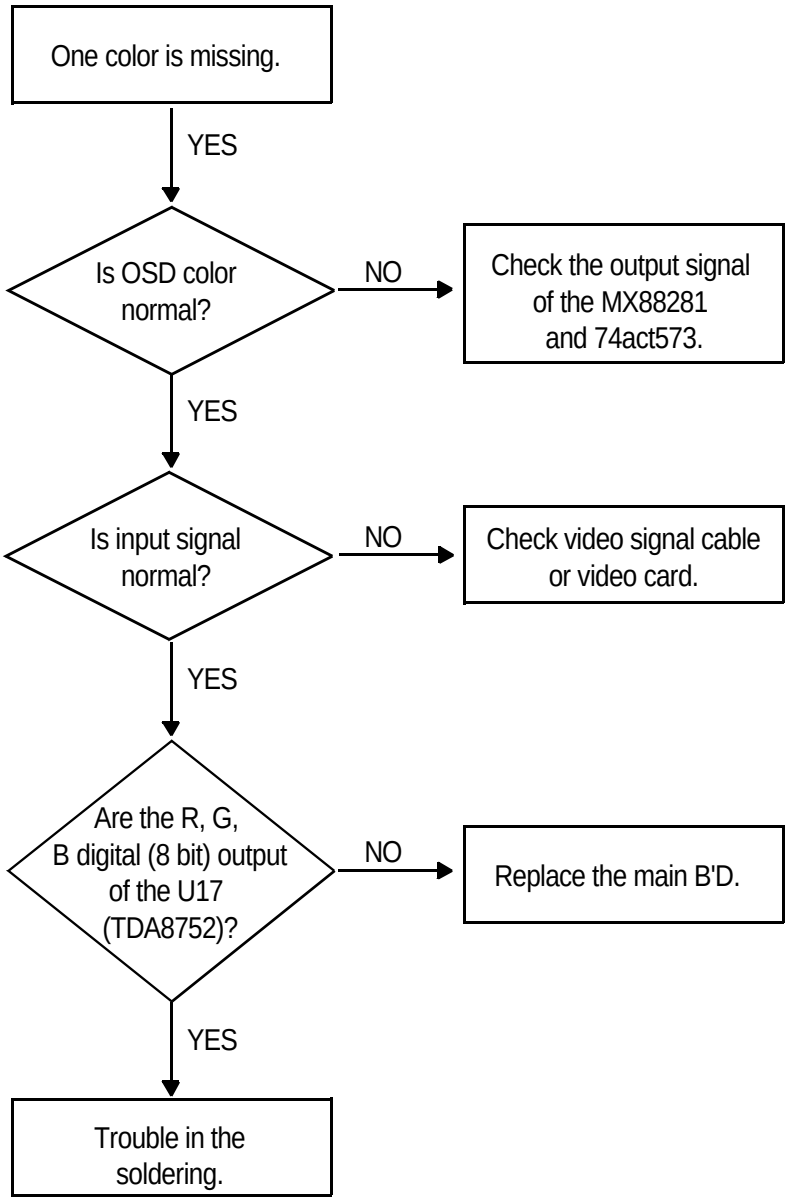
2. Trouble in Power on



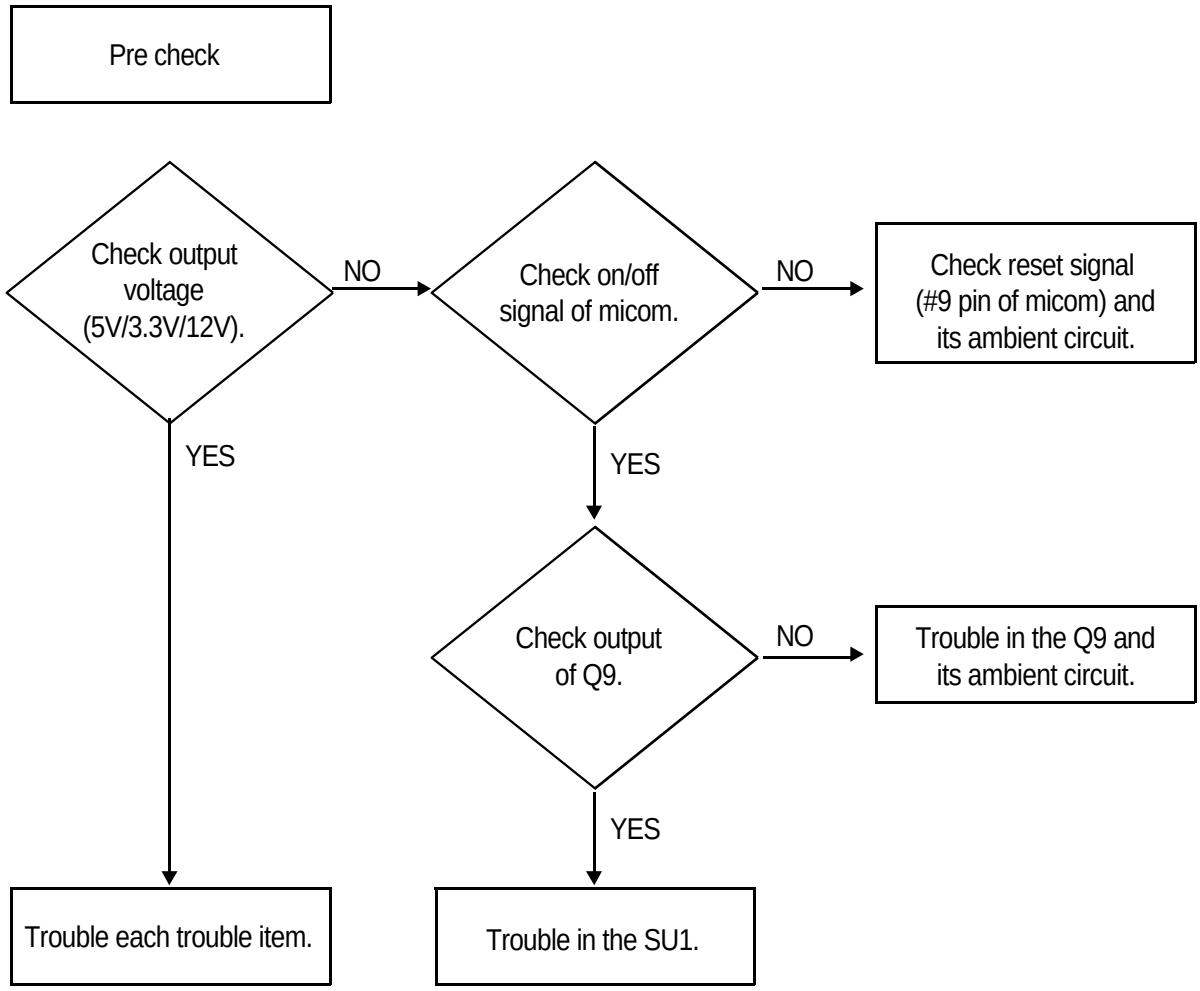
3. No raster


No raster.
Check the output of the Q10 or #3 pin of CN1.
< 2.5V
Trouble in the Q10 or MX88281 (If it's trouble in the MX88282, change the main B'D)
> 2.5V
CN1 #1 pin 12V check.
NO
Check the 12V of the main power.
YES
Check the DC/AC output.
NO
Trouble in DC/AC inverter.
YES
Replace LCD panel.

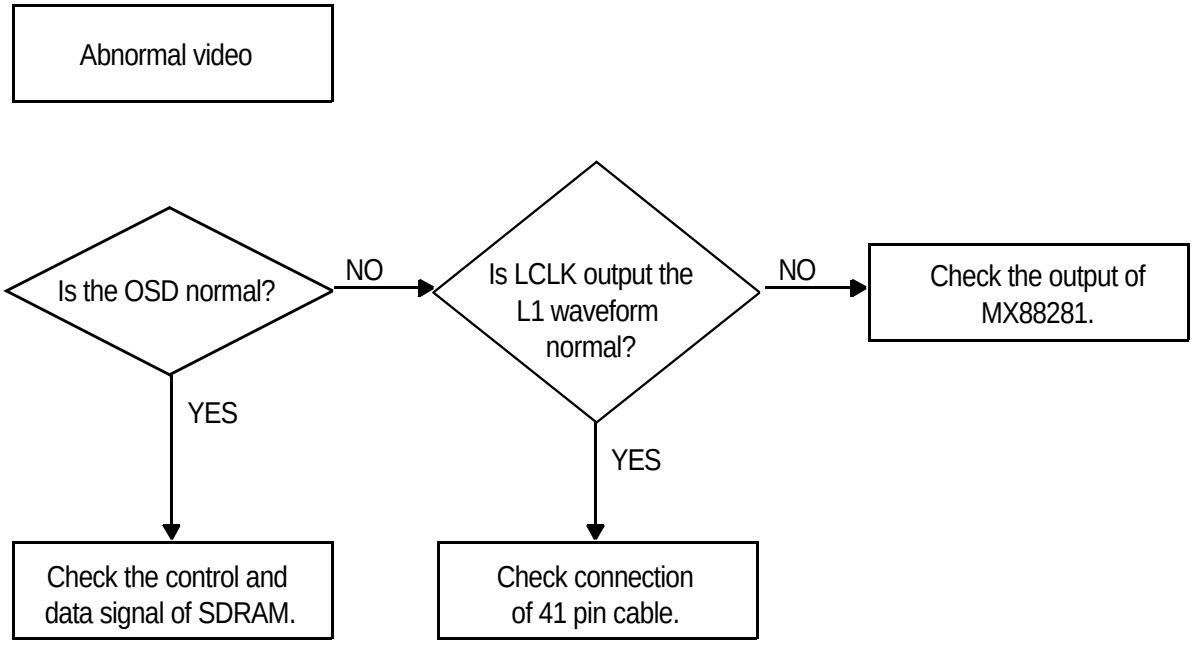
4. One color is missing



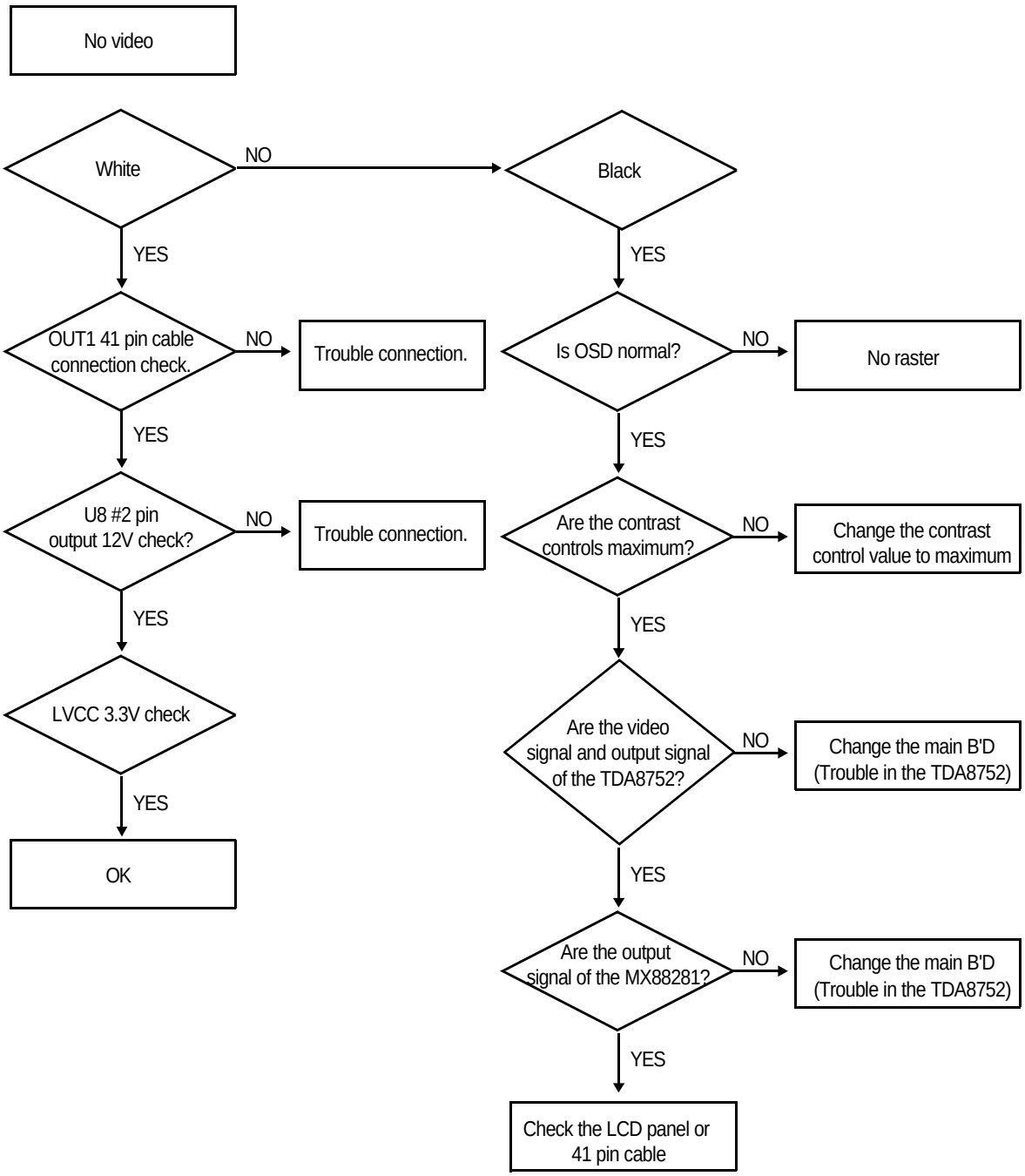
5. Pre check


Pre check
Check output voltage (5V/3.3V/12V).
NO
Check on/off signal of micom.
NO
Check reset signal (#9 pin of micom) and its ambient circuit.
YES
YES
Check output of Q9.
NO
Trouble in the Q9 and its ambient circuit.
YES
Trouble each trouble item.
Trouble in the SU1.

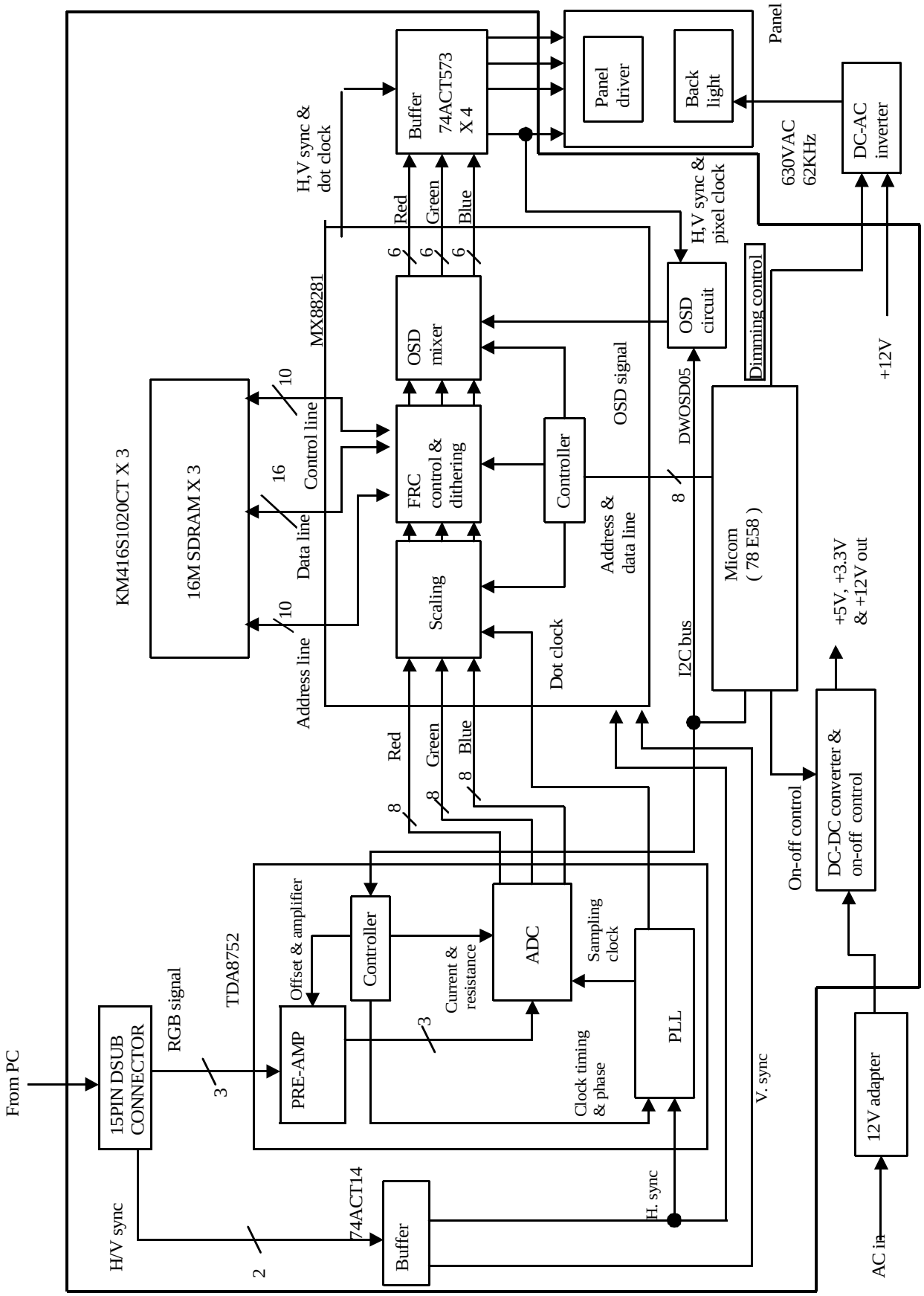
6. Abnormal video



7. No video

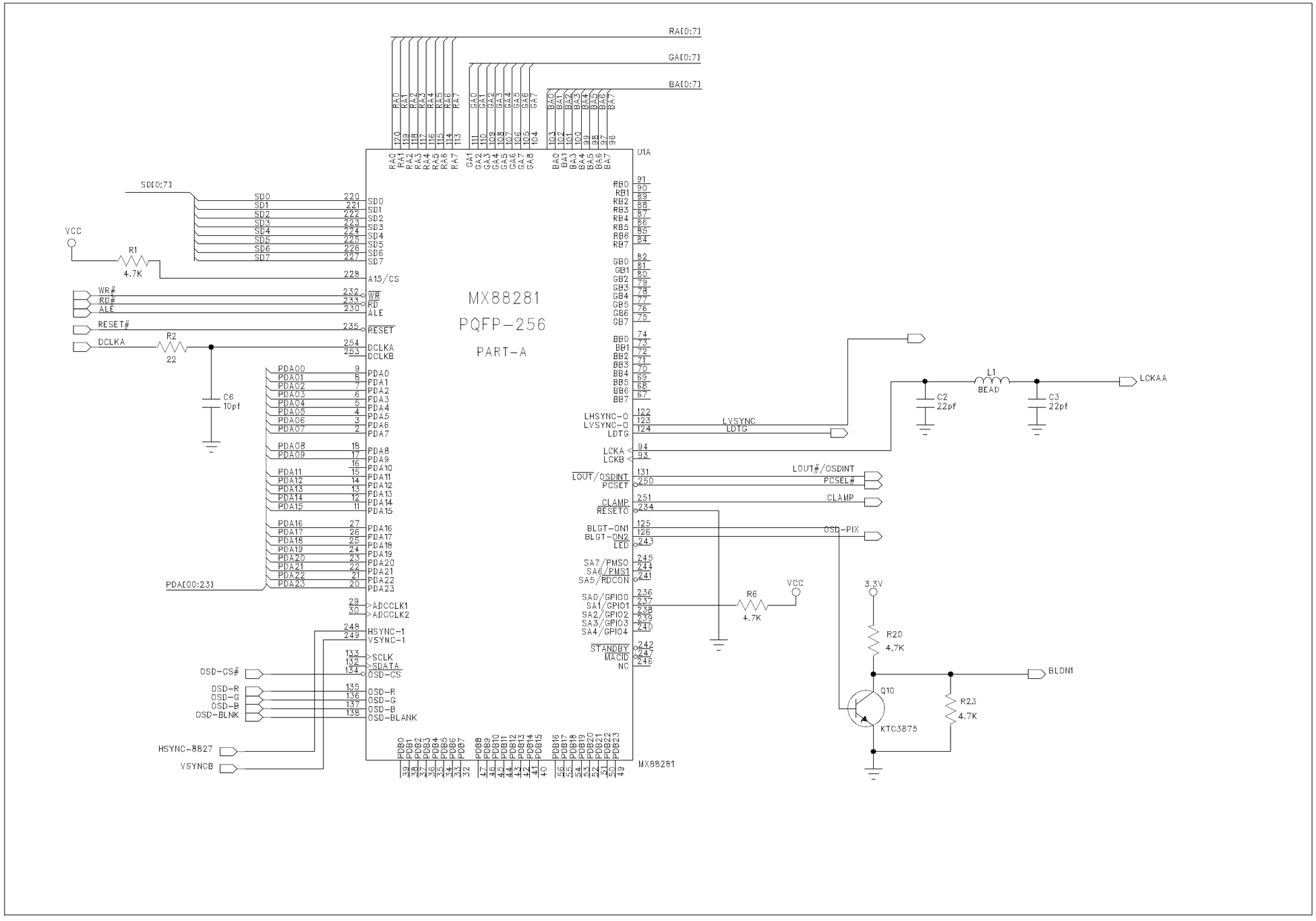

No video
White
NO
Black
YES
YES
OUT1 41 pin cable connection check.
NO
Trouble connection.
Is OSD normal?
NO
No raster
YES
YES
U8 #2 pin output 12V check?
NO
Trouble connection.
Are the contrast controls maximum?
NO
Change the contrast control value to maximum
YES
YES
LVCC 3.3V check
Are the video signal and output signal of the TDA8752?
NO
Change the main B'D (Trouble in the TDA8752)
YES
YES
OK
Are the output signal of the MX88281?
NO
Change the main B'D (Trouble in the TDA8752)
YES
Check the LCD panel or 41 pin cable

BLOCK DIAGRAM

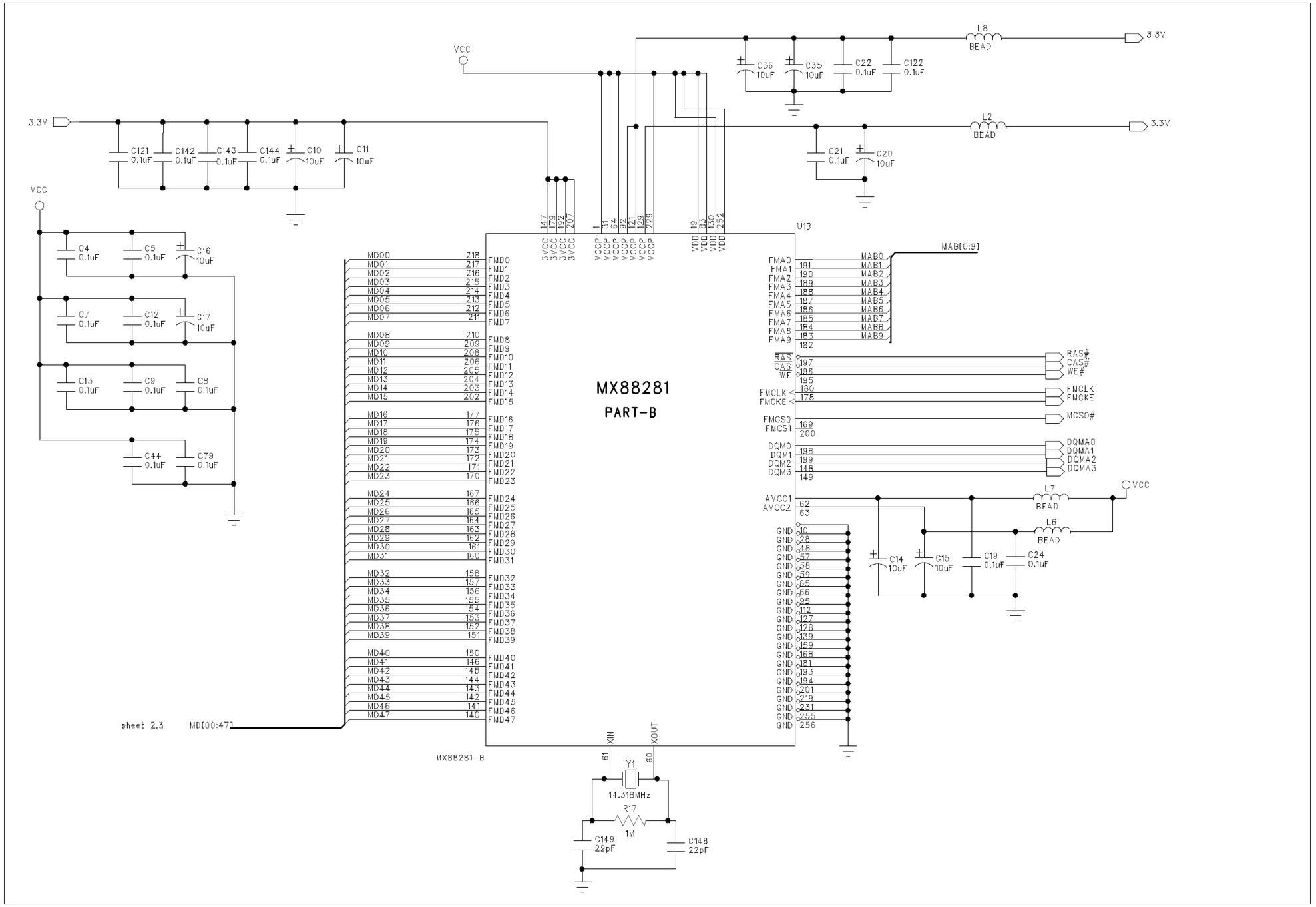


SCHEMATIC DIAGRAM

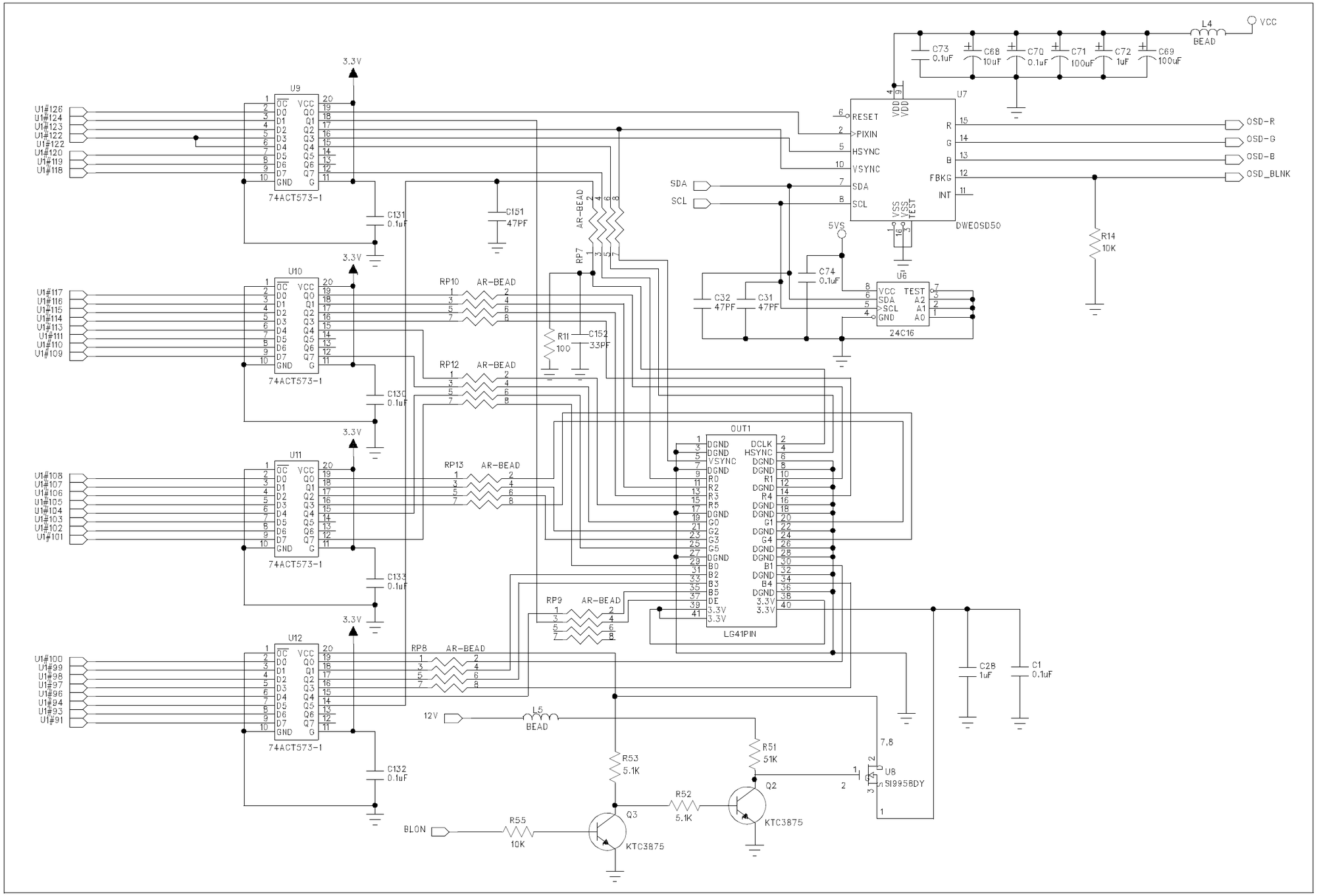
◆ **MAIN88281A**



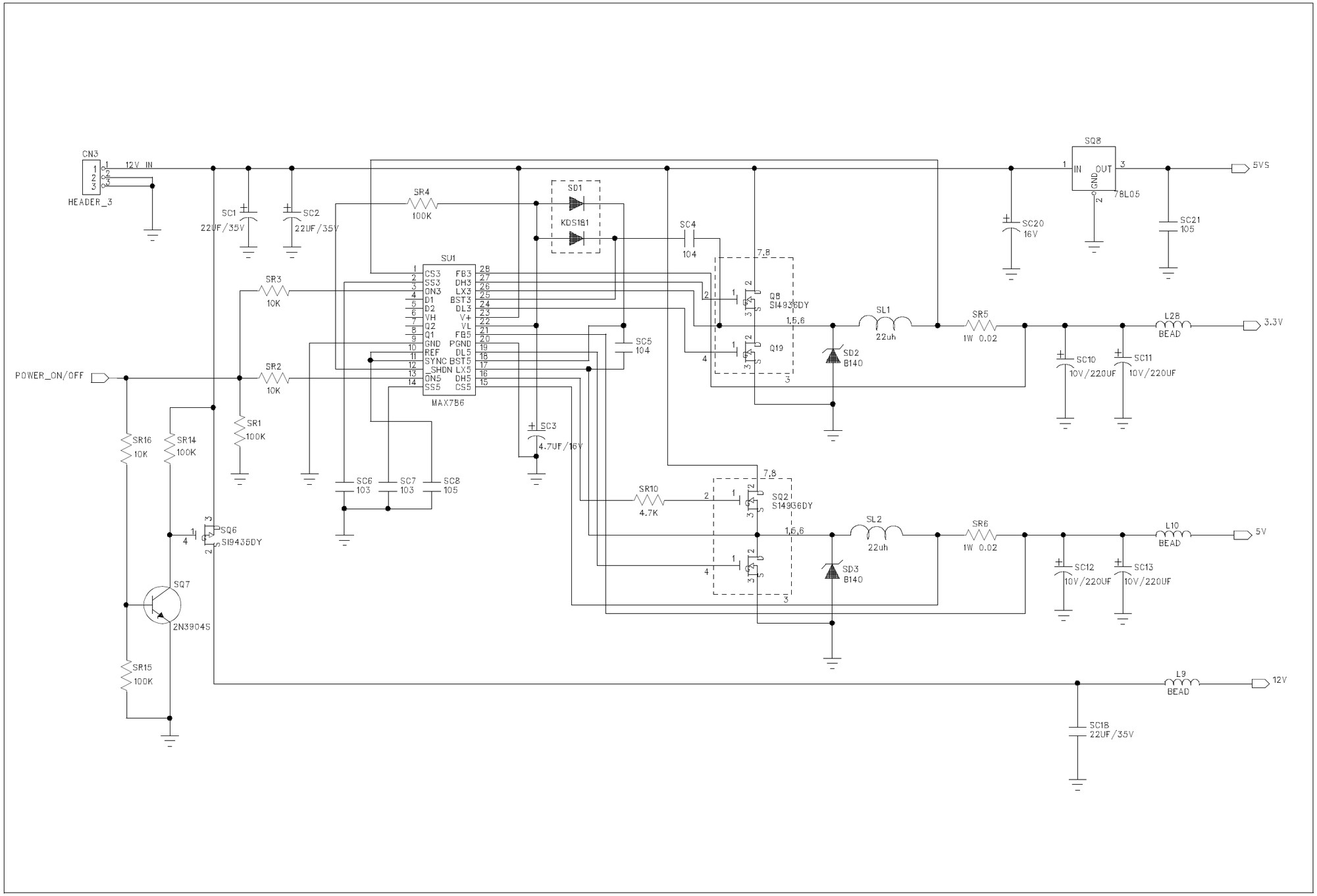
◆ TOP CIRCUIT


VCC
3.3V
L8
BEAD
L2
BEAD
L7
BEAD
L6
BEAD
C36 10uF
C35 10uF
C22 0.1uF
C122 0.1uF
C121 0.1uF
C142 0.1uF
C143 0.1uF
C144 0.1uF
C10 10uF
C11 10uF
C21 0.1uF
C20 10uF
C4 0.1uF
C5 0.1uF
C16 10uF
C7 0.1uF
C12 0.1uF
C17 10uF
C13 0.1uF
C9 0.1uF
C8 0.1uF
C44 0.1uF
C79 0.1uF
C14 10uF
C15 10uF
C19 0.1uF
C24 0.1uF
U1B
MX88281
PART-B
MX88281-B
MAB[0:9]
RAS#
CAS#
WE#
FMCLK
FMCKE
MCS0#
DQMA0
DQMA1
DQMA2
DQMA3
XIN
XOUT
Y1
14.318MHz
R17
1M
C149 22pF
C148 22pF
sheet 2,3
MD[00:47]

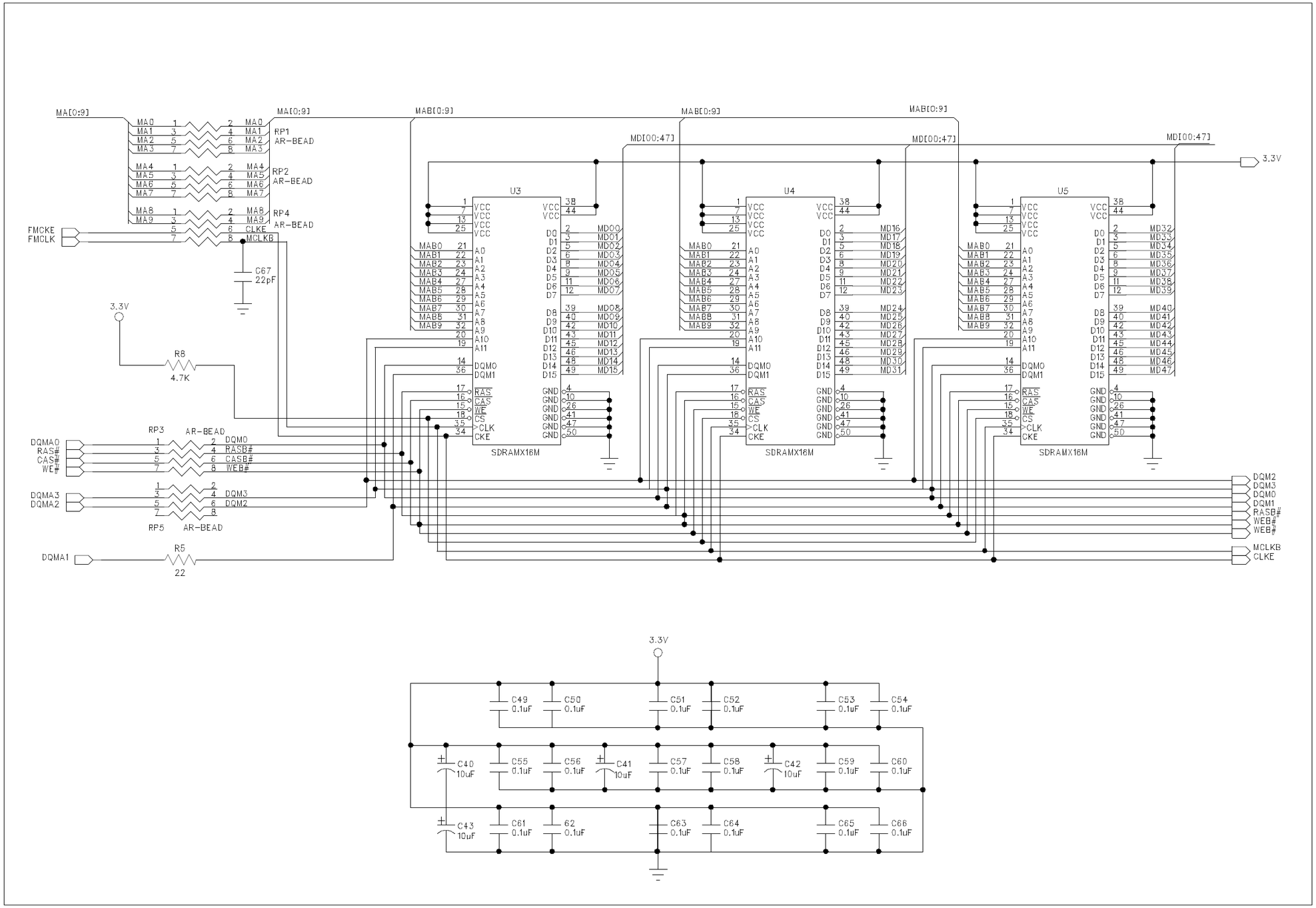
◆ BUFFER


U9
74ACT573-1
U10
74ACT573-1
U11
74ACT573-1
U12
74ACT573-1
U7
DWEOSD50
U6
24C16
OUT1
LG41PIN
U8
SI995BDY
3.3V
5VS
12V
VCC
L4
BEAD
L5
BEAD
C73 0.1uF
C68 10uF
C70 0.1uF
C71 100uF
C72 1uF
C69 100uF
C131 0.1uF
C151 47PF
C130 0.1uF
C133 0.1uF
C132 0.1uF
C74 0.1uF
C32 47PF
C31 47PF
C152 33PF
C28 1uF
C1 0.1uF
RP7 AR-BEAD
RP10 AR-BEAD
RP12 AR-BEAD
RP13 AR-BEAD
RP9 AR-BEAD
RP8 AR-BEAD
R11 100
R14 10K
R53 5.1K
R51 51K
R52 5.1K
R55 10K
Q2 KTC3875
Q3 KTC3875
SDA
SCL
BLON
OSD-R
OSD-G
OSD-B
OSD_BLNK

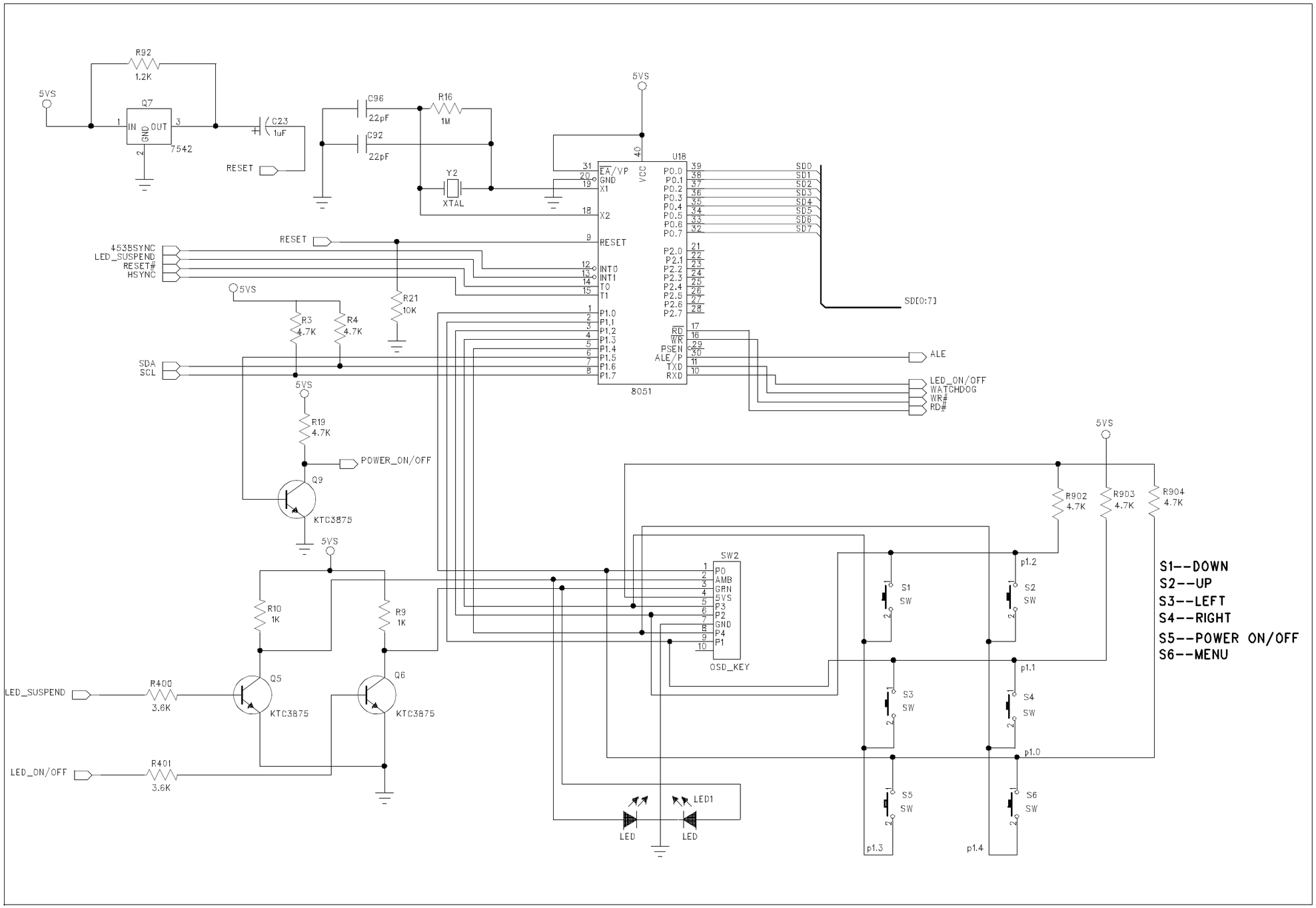
◆ POWER DC/DC


CN3
12V_IN
HEADER_3
SC1
22UF/35V
SC2
22UF/35V
SR4
100K
SD1
KDS181
SC4
104
SU1
MAX786
SR3
10K
SR2
10K
POWER_ON/OFF
SR1
100K
SR16
10K
SR14
100K
SR15
100K
SQ6
SI9435DY
SQ7
2N3904S
SC5
104
SC3
4.7UF/16V
SC6
103
SC7
103
SC8
105
Q8
SI4936DY
Q19
SD2
B140
SL1
22uh
SR5
1W 0.02
SQ8
78L05
IN
OUT
GND
SC20
16V
SC21
105
5VS
SC10
10V/220UF
SC11
10V/220UF
L28
BEAD
3.3V
SR10
4.7K
SQ2
SI4936DY
SD3
B140
SL2
22uh
SR6
1W 0.02
SC12
10V/220UF
SC13
10V/220UF
L10
BEAD
5V
L9
BEAD
12V
SC18
22UF/35V

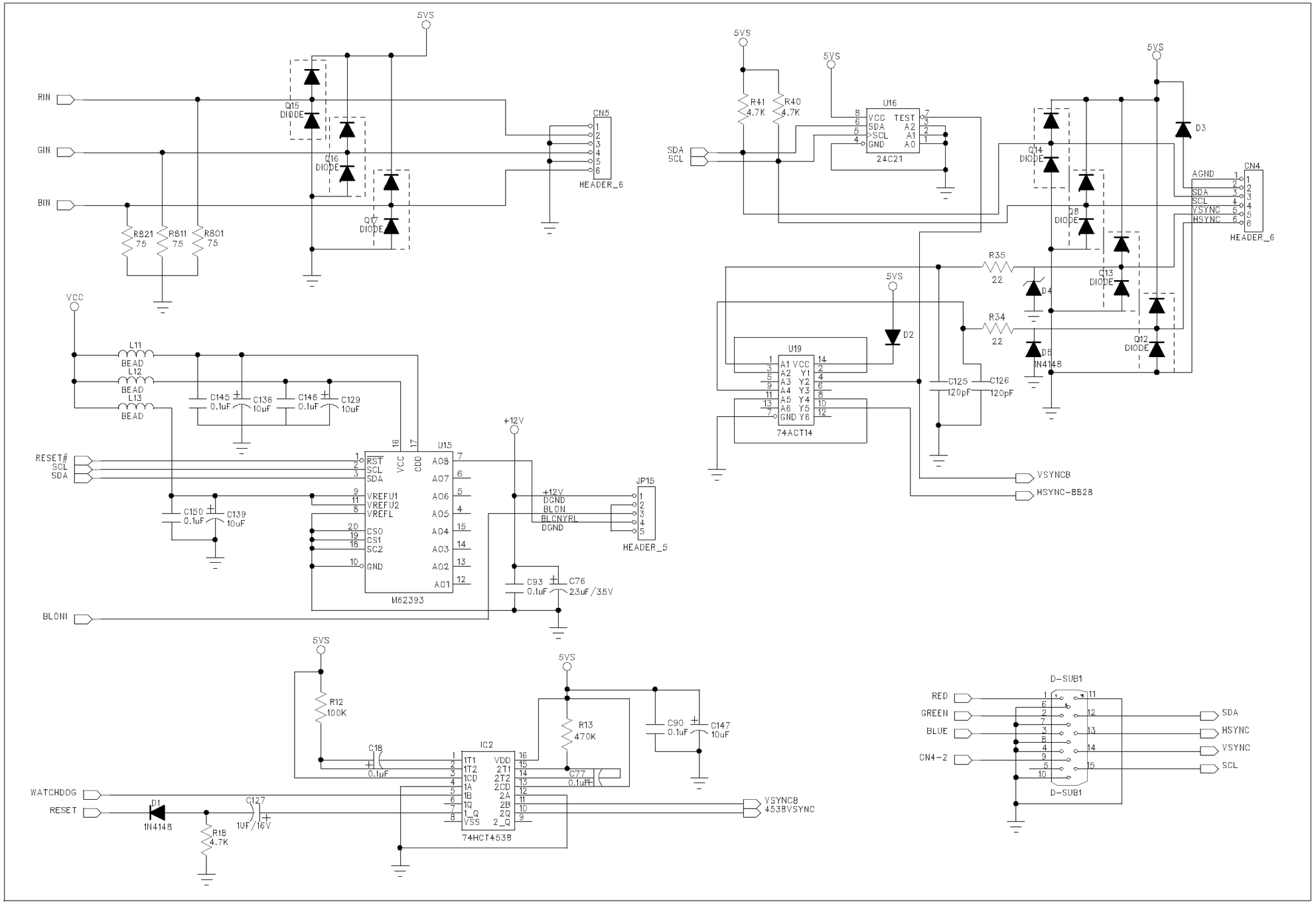
◆ MEMORY


MA[0:9]
MA0
MA1
MA2
MA3
MA4
MA5
MA6
MA7
MA8
MA9
RP1
AR-BEAD
RP2
AR-BEAD
RP4
AR-BEAD
FMCKE
FMCLK
CLKE
MCLKB
C67
22pF
3.3V
R8
4.7K
RP3
AR-BEAD
DQMA0
RAS#
CAS#
WE#
DQM0
RASB#
CASB#
WEB#
DQMA3
DQMA2
DQM3
DQM2
RP5
AR-BEAD
DQMA1
R5
22
MAB[0:9]
MDI[00:47]
U3
U4
U5
SDRAMX16M
VCC
GND
RAS
CAS
WE
CS
CLK
CKE
DQM0
DQM1
3.3V
DQM2
DQM3
DQM0
DQM1
RASB#
WEB#
WEB#
MCLKB
CLKE
C49 0.1uF
C50 0.1uF
C51 0.1uF
C52 0.1uF
C53 0.1uF
C54 0.1uF
C40 10uF
C55 0.1uF
C56 0.1uF
C41 10uF
C57 0.1uF
C58 0.1uF
C42 10uF
C59 0.1uF
C60 0.1uF
C43 10uF
C61 0.1uF
62 0.1uF
C63 0.1uF
C64 0.1uF
C65 0.1uF
C66 0.1uF

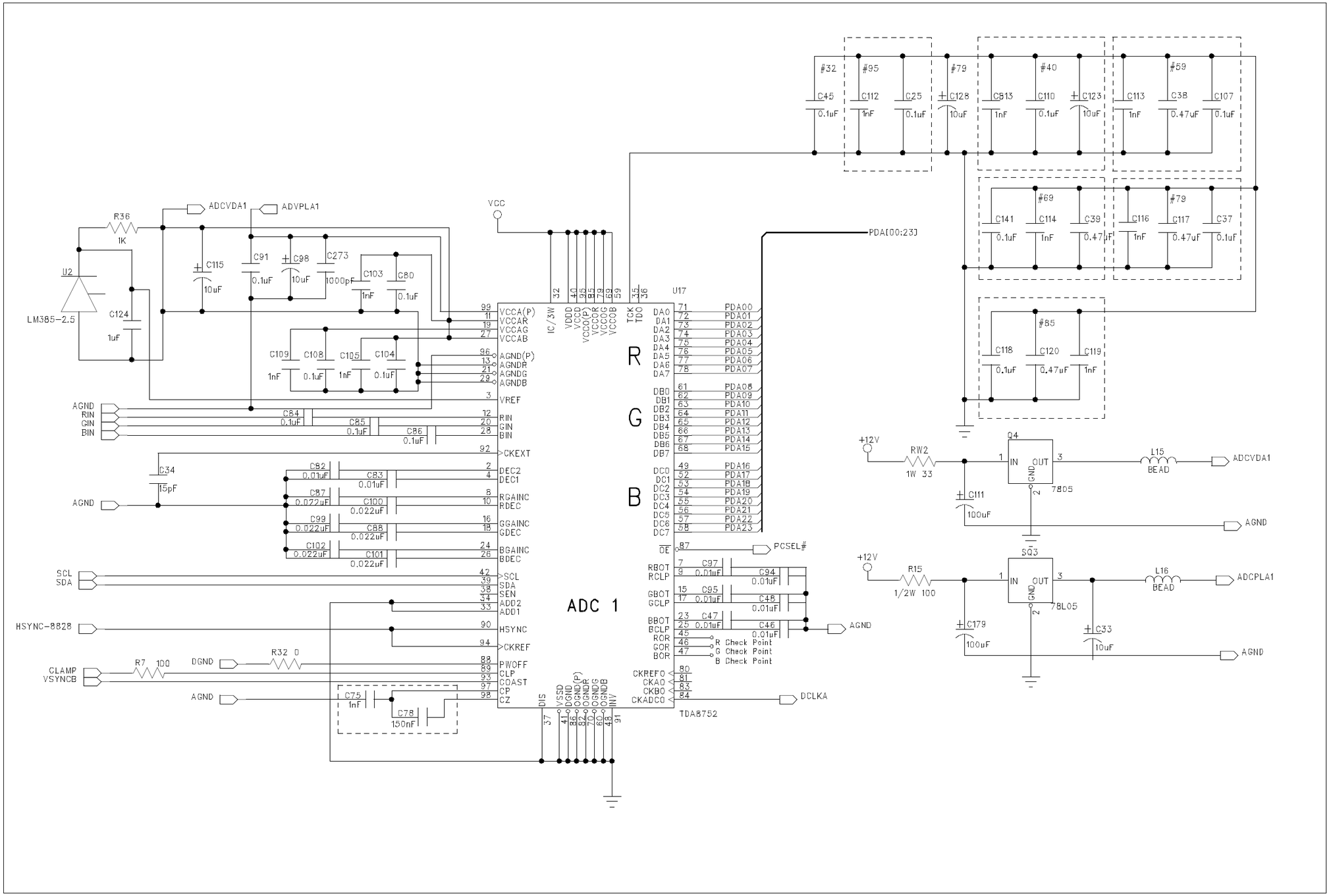
◆ MICOM


R92
1.2K
5VS
Q7
IN
GND
OUT
7542
C23
1uF
RESET
C96
22pF
C92
22pF
R16
1M
Y2
XTAL
U18
EA/VP
GND
X1
X2
VCC
RESET
INT0
INT1
T0
T1
P1.0
P1.1
P1.2
P1.3
P1.4
P1.5
P1.6
P1.7
P0.0
P0.1
P0.2
P0.3
P0.4
P0.5
P0.6
P0.7
P2.0
P2.1
P2.2
P2.3
P2.4
P2.5
P2.6
P2.7
RD
WR
PSEN
ALE/P
TXD
RXD
8051
SD0
SD1
SD2
SD3
SD4
SD5
SD6
SD7
SD[0:7]
4538SYNC
LED_SUSPEND
RESET#
HSYNC
R21
10K
R3
4.7K
R4
4.7K
SDA
SCL
ALE
LED_ON/OFF
WATCHDOG
WR#
RD#
R19
4.7K
POWER_ON/OFF
Q9
KTC3875
R902
4.7K
R903
4.7K
R904
4.7K
SW2
PO
AMB
GRN
5VS
P3
P2
GND
P4
P1
OSD_KEY
R10
1K
R9
1K
Q5
Q6
KTC3875
KTC3875
R400
3.6K
LED_SUSPEND
R401
3.6K
LED_ON/OFF
LED1
LED
LED
S1
SW
S2
SW
S3
SW
S4
SW
S5
SW
S6
SW
p1.2
p1.1
p1.0
p1.3
p1.4
S1--DOWN
S2--UP
S3--LEFT
S4--RIGHT
S5--POWER ON/OFF
S6--MENU

◆ RGB/SYNC


5VS
RIN
GIN
BIN
Q15 DIODE
C16 DIODE
Q17 DIODE
CN5
HEADER_6
R821 75
R811 75
R801 75
VCC
L11 BEAD
L12 BEAD
L13 BEAD
C145 0.1uF
C136 10uF
C146 0.1uF
C129 10uF
RESET#
SCL
SDA
U15
M62393
RST
VCC
CDD
VREFU1
VREFU2
VREFL
CS0
CS1
SC2
GND
A08
A07
A06
A05
A04
A03
A02
A01
+12V
JP15
DGND
BLON
BLCNYRL
HEADER_5
C150 0.1uF
C139 10uF
C93 0.1uF
C76 23uF/35V
BLON1
R41 4.7K
R40 4.7K
U16
24C21
VCC
SDA
SCL
GND
TEST
A2
A1
A0
Q14 DIODE
Q8 DIODE
Q13 DIODE
Q12 DIODE
D3
D4
D5 IN4148
R35 22
R34 22
AGND
SDA
SCL
VSYNC
HSYNC
CN4
HEADER_6
U19
74ACT14
D2
C125 120pF
C126 120pF
VSYNCB
HSYNC-BB28
R12 100K
C18 0.1uF
IC2
74HCT453B
R13 470K
C90 0.1uF
C147 10uF
C77 0.1uH
WATCHDOG
RESET
D1 1N4148
R18 4.7K
C127 1UF/16V
VSYNCB
453BVSYNC
D-SUB1
RED
GREEN
BLUE
CN4-2
SDA
HSYNC
VSYNC
SCL

◆ TDA8752A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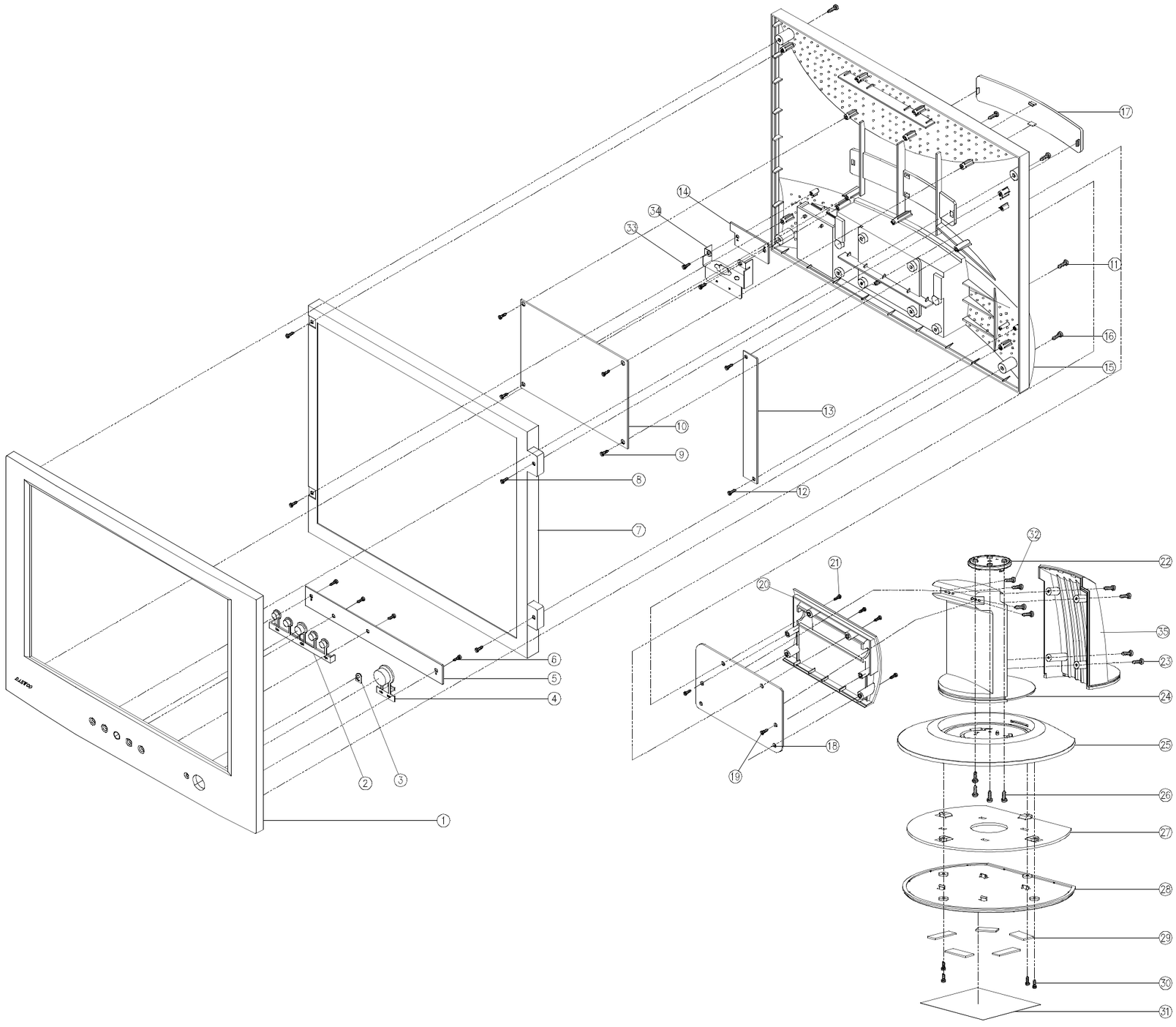
VCC
R36
1K
U2
LM385-2.5
C124
1uF
C115
10uF
C91
0.1uF
C98
10uF
C273
1000pF
C103
1nF
C80
0.1uF
C109
1nF
C108
0.1uF
C105
1nF
C104
0.1uF
AGND
RIN
GIN
BIN
C84
0.1uF
C85
0.1uF
C86
0.1uF
C34
15pF
C82
0.01uF
C83
0.01uF
C87
0.022uF
C100
0.022uF
C99
0.022uF
C88
0.022uF
C102
0.022uF
C101
0.022uF
SCL
SDA
HSYNC-8828
CLAMP
VSYNCB
R7 100
DGND
R32 0
C75
1nF
C78
150nF
VCCA(P)
VCCAR
VCCAG
VCCAB
AGND(P)
AGNDR
AGNDG
AGNDB
VREF
RIN
GIN
BIN
CKEXT
DEC2
DEC1
RGAINC
RDEC
GGAINC
GDEC
BGAINC
BDEC
SCL
SDA
SEN
ADD2
ADD1
HSYNC
CKREF
PWOFF
CLP
COAST
CP
CZ
IC/3W
VDDD
VCCD
VCCO(P)
VCCOR
VCCOG
VCCOB
DIS
VSSD
DGND
DGND(P)
DGNDR
DGNDG
DGNDB
INV
TCK
TDO
U17
R
G
B
DA0
DA1
DA2
DA3
DA4
DA5
DA6
DA7
DB0
DB1
DB2
DB3
DB4
DB5
DB6
DB7
DC0
DC1
DC2
DC3
DC4
DC5
DC6
DC7
PDA00
PDA01
PDA02
PDA03
PDA04
PDA05
PDA06
PDA07
PDA08
PDA09
PDA10
PDA11
PDA12
PDA13
PDA14
PDA15
PDA16
PDA17
PDA18
PDA19
PDA20
PDA21
PDA22
PDA23
PDA[00:23]
OE
PCSEL#
RBOT
RCLP
GBOT
GCLP
BBOT
BCLP
ROR
GOR
BOR
C97
0.01uF
C94
0.01uF
C95
0.01uF
C48
0.01uF
C47
0.01uF
C46
0.01uF
R Check Point
G Check Point
B Check Point
ADC 1
CKREFO
CKAO
CKBO
CKADCO
DCLKA
TDA8752
#32
#95
C45
0.1uF
C112
1nF
C25
0.1uF
#79
C128
10uF
C113
1nF
C110
0.1uF
C123
10uF
#40
C38
0.47uF
C107
0.1uF
#59
C141
0.1uF
#69
C114
1nF
C39
0.47uF
C116
1nF
#79
C117
0.47uF
C37
0.1uF
C118
0.1uF
#85
C120
0.47uF
C119
1nF
+12V
RW2
1W 33
Q4
IN
OUT
GND
7805
L15
BEAD
C111
100uF
AGND
SQ3
7BL05
R15
1/2W 100
L16
BEAD
C179
100uF
C33
10uF

EXPLODED VIEW & MECHANICAL PARTS LIST



35	9972923200	STAND REAR	1	HB-ABS GY-275A(94-HB)	
34	9977246700	SHIELD CONNECTOR	1	EGI 0.8T	BKT REAR+REAR
33	7178301011	SCREW TAPTITE	2	TT2 WAS 3x10 MFZN	SUB PCB+REAR
32	7063401211	SCREW MACHINE	4	M/S BIN 4*12 MFZN SW	HINGE+ST/FRONT
31	9975424800	LABEL RATING	1	PE	
30	7173401411	SCREW TAPTITE	4	TT2 BIN 4x14 MFZN	ST/TOP+ST/BOTTOM
29	9972712800	FOOT	5	RUBBER	
28	9972923400	STAND BOTTOM	1	HB-ABS GY-275A(94-HB)	
27	9973724700	SUPPORTER STAND	1	EGI 3.0T	
26	7173401411	SCREW TAPTITE	4	TT2 BIN 4x14 MFZN	ST/TOP+FRIC./ PAD
25	9972923300	STAND TOP	1	HB-ABS GY-275A(94-HB)	
24	9972923100	STAND FRONT	1	HB-ABS GY-275A(94-HB)	
23	7173401411	SCREW TAPTITE	4	TT2 BIN 4x14 MFZN	ST/FRO+ST/REAR
22	9972923600	FRICTION PAD	1	PC+ABS GY-275A	
21	7063421011	SCREW MACHINE	4	M/S BIN 4*12 MFZN SW	STAND AS+REAR
20	9972214300	COVER MOUNT	1	HB-ABS GY-275A(94-HB)	
19	7173401411	SCREW TAPTITE	2	TT2 BIN 4x14 MFZN	CO/MOUNT+HINGE
18	9973922600	BKT HINGE ASS'Y	1	SUS 1.5T	
17	9975111400	DECO PANEL	1	HB-ABS GY-275A(94-HB)	
16	7173401411	SCREW TAPTITE	4	TT2 BIN 4x14 MFZN	FRONT+REAR
15	9972116400	COVER REAR	1	FR-ABS GY-275A	
14		SUB PCB	1		
13		INBERTER PCB	1		
12	7178301011	SCREW TAPTITE	2	TT2 WAS 3x10 MFZN	INBERTER PCB+REAR
11	7173401411	SCREW TAPTITE	1	TT2 BIN 4x14 MFZN	
10		MAIN PCB	1		
9	7178301011	SCREW TAPTITE	4	TT2 WAS 3x10 MFZN	MAIN PCB+REAR
8	7178301011	SCREW TAPTITE	4	TT2 WAS 3x10 MFZN	REAR +LCD
7		LCD PANEL	1		
6	7178301011	SCREW TAPTITE	4	TT2 WAS 3x10 MFZN	FRONT+CON/PCB
5		CONTROL PCB	1		
4	9974822600	BUTTON POWER	1	HB-ABS GY-275A(94-HB)	
3	9977918300	LENS LED	1	ACRYL	
2	9974822500	BUTTON POWER	1	HB-ABS GY-275A(94-HB)	
1	9972019600	COVER FRONT	1	FR-ABS GY-275A	
NO	PART CODE	PART NAME	QTY	DESCRIPTION	REMARK

INFORMATION OF PART DESCRIPTION

Important Safety Notice

Components identified with the International Symbol have special characteristics important for safety. When replacing any components, use only manufacturer's specified parts.

Abbreviation of Description

RESISTOR Description

Allowance	
F	±1%
J	±5%
K	±10%
M	±20%
G	±2%

Example

Fig & Index	Part No	Description
R18	Resistors	
	HRFT472JCA	Chip=1/10W 472J

CAPACITOR Description

Allowance	
C	±0.25pF
D	±0.5%
F	±1pF
J	±5%
K	±10%
P	±100% ~ 0%
Z	±80% ~ -

Example

Fig & Index	Part No	Description
C044	Capacitors	
	HRFT104ZCA	Chip CERA 50V Y5V 0.1μF Z 2012

ELECTRICAL PARTS LIST

The components identified by mark ⚠ have special characteristics important for safety and X-ray. These should be replaced only with the types specified in the parts list.

LOC	PART-CODE	PART-NAME	PART-DESC
⚠ AD1	9979720013	ADAPTER POWER	ISA50-1
AD1A	W3414M731-	CORD POWER	KKP-419C/KKS-15A 1.8M(BK)
C044	HCFK104ZCA	C CHIP CERA	50V Y5V 0.1MF Z 2012
C045	HCFK104ZCA	C CHIP CERA	50V Y5V 0.1MF Z 2012
C046	HCFK103ZCA	C CHIP CERA	50V Y5V 0.01MF Z 2012
C047	HCFK103ZCA	C CHIP CERA	50V Y5V 0.01MF Z 2012
C048	HCFK103ZCA	C CHIP CERA	50V Y5V 0.01MF Z 2012
C049	HCFK104ZCA	C CHIP CERA	50V Y5V 0.1MF Z 2012
C050	HCFK104ZCA	C CHIP CERA	50V Y5V 0.1MF Z 2012
C051	HCFK104ZCA	C CHIP CERA	50V Y5V 0.1MF Z 2012
C052	HCFK104ZCA	C CHIP CERA	50V Y5V 0.1MF Z 2012
C053	HCFK104ZCA	C CHIP CERA	50V Y5V 0.1MF Z 2012
C054	HCFK104ZCA	C CHIP CERA	50V Y5V 0.1MF Z 2012
C055	HCFK104ZCA	C CHIP CERA	50V Y5V 0.1MF Z 2012
C056	HCFK104ZCA	C CHIP CERA	50V Y5V 0.1MF Z 2012
C057	HCFK104ZCA	C CHIP CERA	50V Y5V 0.1MF Z 2012
C058	HCFK104ZCA	C CHIP CERA	50V Y5V 0.1MF Z 2012
C059	HCFK104ZCA	C CHIP CERA	50V Y5V 0.1MF Z 2012
C060	HCFK104ZCA	C CHIP CERA	50V Y5V 0.1MF Z 2012
C061	HCFK104ZCA	C CHIP CERA	50V Y5V 0.1MF Z 2012
C062	HCFK104ZCA	C CHIP CERA	50V Y5V 0.1MF Z 2012
C063	HCFK104ZCA	C CHIP CERA	50V Y5V 0.1MF Z 2012
C064	HCFK104ZCA	C CHIP CERA	50V Y5V 0.1MF Z 2012
C065	HCFK104ZCA	C CHIP CERA	50V Y5V 0.1MF Z 2012
C066	HCFK104ZCA	C CHIP CERA	50V Y5V 0.1MF Z 2012
C067	HCQK220JCA	C CHIP CERA	50V CH 22PF J 2012
C068	HCTAF109MB	C CHIP TANTAL	16V 1MF M 3216
C069	HCTEF101MC	C CHIP TANTAL	16V 100MF M 7343 TS
C070	HCFK104ZCA	C CHIP CERA	50V Y5V 0.1MF Z 2012
C071	HCTEF101MC	C CHIP TANTAL	16V 100MF M 7343 TS
C072	HCTAF109MB	C CHIP TANTAL	16V 1MF M 3216
C073	HCFK104ZCA	C CHIP CERA	50V Y5V 0.1MF Z 2012
C074	HCFK104ZCA	C CHIP CERA	50V Y5V 0.1MF Z 2012
C075	HCQK102JCA	C CHIP CERA	50V CH 1000PF J 2012
C076	HCTEJ220MC	C CHIP TANTAL	35V 22MF M 7343
C077	HCFK104ZCA	C CHIP CERA	50V Y5V 0.1MF Z 2012
C078	HCFK154ZCA	C CHIP CERA	Y5V 50V 0.15MF Z 2012
C079	HCFK104ZCA	C CHIP CERA	50V Y5V 0.1MF Z 2012
C080	HCFK104ZCA	C CHIP CERA	50V Y5V 0.1MF Z 2012
C081	HCFK104ZCA	C CHIP CERA	50V Y5V 0.1MF Z 2012

LOC	PART-CODE	PART-NAME	PART-DESC
C082	HCFK103ZCA	C CHIP CERA	50V Y5V 0.01MF Z 2012
C083	HCFK103ZCA	C CHIP CERA	50V Y5V 0.01MF Z 2012
C084	HCFK104ZCA	C CHIP CERA	50V Y5V 0.1MF Z 2012
C085	HCFK104ZCA	C CHIP CERA	50V Y5V 0.1MF Z 2012
C086	HCFK104ZCA	C CHIP CERA	50V Y5V 0.1MF Z 2012
C087	HCFK223ZCA	C CHIP CERA	50V Y5V 0.022MF Z 2012
C088	HCFK223ZCA	C CHIP CERA	50V Y5V 0.022MF Z 2012
C090	HCTBF100MB	C CHIP TANTAL	16V 10MF M 3528 TS
C091	HCFK104ZCA	C CHIP CERA	50V Y5V 0.1MF Z 2012
C092	HCQK220JCA	C CHIP CERA	50V CH 22PF J 2012
C093	HCFK104ZCA	C CHIP CERA	50V Y5V 0.1MF Z 2012
C094	HCFK103ZCA	C CHIP CERA	50V Y5V 0.01MF Z 2012
C095	HCFK103ZCA	C CHIP CERA	50V Y5V 0.01MF Z 2012
C096	HCQK220JCA	C CHIP CERA	50V CH 22PF J 2012
C097	HCFK103ZCA	C CHIP CERA	50V Y5V 0.01MF Z 2012
C098	HCTBF100MB	C CHIP TANTAL	16V 10MF M 3528 TS
C099	HCFK223ZCA	C CHIP CERA	50V Y5V 0.022MF Z 2012
C1	HCFK104ZCA	C CHIP CERA	50V Y5V 0.1MF Z 2012
C10	HCTBF100MB	C CHIP TANTAL	16V 10MF M 3528 TS
C100	HCFK223ZCA	C CHIP CERA	50V Y5V 0.022MF Z 2012
C101	HCFK223ZCA	C CHIP CERA	50V Y5V 0.022MF Z 2012
C102	HCFK223ZCA	C CHIP CERA	50V Y5V 0.022MF Z 2012
C103	HCQK102JCA	C CHIP CERA	50V CH 1000PF J 2012
C104	HCFK104ZCA	C CHIP CERA	50V Y5V 0.1MF Z 2012
C105	HCQK102JCA	C CHIP CERA	50V CH 1000PF J 2012
C107	HCFK104ZCA	C CHIP CERA	50V Y5V 0.1MF Z 2012
C108	HCFK104ZCA	C CHIP CERA	50V Y5V 0.1MF Z 2012
C109	HCQK102JCA	C CHIP CERA	50V CH 1000PF J 2012
C11	HCTBF100MB	C CHIP TANTAL	16V 10MF M 3528 TS
C110	HCFK104ZCA	C CHIP CERA	50V Y5V 0.1MF Z 2012
C111	HCTEF101MC	C CHIP TANTAL	16V 100MF M 7343 TS
C112	HCQK102JCA	C CHIP CERA	50V CH 1000PF J 2012
C113	HCQK102JCA	C CHIP CERA	50V CH 1000PF J 2012
C114	HCQK102JCA	C CHIP CERA	50V CH 1000PF J 2012
C115	HCTBF100MB	C CHIP TANTAL	16V 10MF M 3528 TS
C116	HCQK102JCA	C CHIP CERA	50V CH 1000PF J 2012
C117	HCFK474ZCA	C CHIP CERA	Y5V 50V 0.47MF Z 2012
C118	HCFK104ZCA	C CHIP CERA	50V Y5V 0.1MF Z 2012
C119	HCQK102JCA	C CHIP CERA	50V CH 1000PF J 2012
C12	HCFK104ZCA	C CHIP CERA	50V Y5V 0.1MF Z 2012

LOC	PART-CODE	PART-NAME	PART-DESC
C120	HCFK474ZCA	C CHIP CERA	Y5V 50V 0.47MF Z 2012
C121	HCFK104ZCA	C CHIP CERA	50V Y5V 0.1MF Z 2012
C122	HCFK104ZCA	C CHIP CERA	50V Y5V 0.1MF Z 2012
C123	HCTBF100MB	C CHIP TANTAL	16V 10MF M 3528 TS
C124	HCFF105ZEA	C CHIP CERA	16V Y5V 1MF Z 3216
C125	HCQK121JCA	C CHIP CERA	50V CH 120PF J 2012
C126	HCQK121JCA	C CHIP CERA	50V CH 120PF J 2012
C127	HCTAF109MB	C CHIP TANTAL	16V 1MF M 3216
C128	HCTBF100MB	C CHIP TANTAL	16V 10MF M 3528 TS
C129	HCTBF100MB	C CHIP TANTAL	16V 10MF M 3528 TS
C13	HCFK104ZCA	C CHIP CERA	50V Y5V 0.1MF Z 2012
C130	HCFK104ZCA	C CHIP CERA	50V Y5V 0.1MF Z 2012
C131	HCFK104ZCA	C CHIP CERA	50V Y5V 0.1MF Z 2012
C132	HCFK104ZCA	C CHIP CERA	50V Y5V 0.1MF Z 2012
C133	HCFK104ZCA	C CHIP CERA	50V Y5V 0.1MF Z 2012
C136	HCTBF100MB	C CHIP TANTAL	16V 10MF M 3528 TS
C139	HCTBF100MB	C CHIP TANTAL	16V 10MF M 3528 TS
C14	HCTBF100MB	C CHIP TANTAL	16V 10MF M 3528 TS
C141	HCFK104ZCA	C CHIP CERA	50V Y5V 0.1MF Z 2012
C142	HCFK104ZCA	C CHIP CERA	50V Y5V 0.1MF Z 2012
C143	HCFK104ZCA	C CHIP CERA	50V Y5V 0.1MF Z 2012
C144	HCFK104ZCA	C CHIP CERA	50V Y5V 0.1MF Z 2012
C145	HCFK104ZCA	C CHIP CERA	50V Y5V 0.1MF Z 2012
C146	HCFK104ZCA	C CHIP CERA	50V Y5V 0.1MF Z 2012
C147	HCFK104ZCA	C CHIP CERA	50V Y5V 0.1MF Z 2012
C148	HCQK220JCA	C CHIP CERA	50V CH 22PF J 2012
C149	HCQK220JCA	C CHIP CERA	50V CH 22PF J 2012
C15	HCTBF100MB	C CHIP TANTAL	16V 10MF M 3528 TS
C150	HCFK104ZCA	C CHIP CERA	50V Y5V 0.1MF Z 2012
C151	HCQK470JCA	C CHIP CERA	50V CH 47PF J 2012
C152	HCQK330JCA	C CHIP CERA	50V CH 33PF J 2012
C16	HCTBF100MB	C CHIP TANTAL	16V 10MF M 3528 TS
C17	HCTBF100MB	C CHIP TANTAL	16V 10MF M 3528 TS
C179	HCTEF101MC	C CHIP TANTAL	16V 100MF M 7343 TS
C18	HCFK104ZCA	C CHIP CERA	50V Y5V 0.1MF Z 2012
C19	HCFK104ZCA	C CHIP CERA	50V Y5V 0.1MF Z 2012
C2	HCQK220JCA	C CHIP CERA	50V CH 22PF J 2012
C20	HCTBF100MB	C CHIP TANTAL	16V 10MF M 3528 TS
C21	HCFK104ZCA	C CHIP CERA	50V Y5V 0.1MF Z 2012
C22	HCFK104ZCA	C CHIP CERA	50V Y5V 0.1MF Z 2012
C23	HCTAF109MB	C CHIP TANTAL	16V 1MF M 3216
C24	HCFK104ZCA	C CHIP CERA	50V Y5V 0.1MF Z 2012
C25	HCFK104ZCA	C CHIP CERA	50V Y5V 0.1MF Z 2012
C27	HCFK104ZCA	C CHIP CERA	50V Y5V 0.1MF Z 2012

LOC	PART-CODE	PART-NAME	PART-DESC
C273	HCQK102JCA	C CHIP CERA	50V CH 1000PF J 2012
C28	HCTBF100MB	C CHIP TANTAL	16V 10MF M 3528 TS
C29	HCTBF100MB	C CHIP TANTAL	16V 10MF M 3528 TS
C3	HCQK220JCA	C CHIP CERA	50V CH 22PF J 2012
C31	HCQK470JCA	C CHIP CERA	50V CH 47PF J 2012
C32	HCQK470JCA	C CHIP CERA	50V CH 47PF J 2012
C33	HCTBF100MB	C CHIP TANTAL	16V 10MF M 3528 TS
C34	HCQK150JCA	C CHIP CERA	50V CH 15PF J 2012
C35	HCTBF100MB	C CHIP TANTAL	16V 10MF M 3528 TS
C36	HCTBF100MB	C CHIP TANTAL	16V 10MF M 3528 TS
C37	HCFK104ZCA	C CHIP CERA	50V Y5V 0.1MF Z 2012
C38	HCFK474ZCA	C CHIP CERA	Y5V 50V 0.47MF Z 2012
C39	HCFK474ZCA	C CHIP CERA	Y5V 50V 0.47MF Z 2012
C4	HCFK104ZCA	C CHIP CERA	50V Y5V 0.1MF Z 2012
C40	HCTBF100MB	C CHIP TANTAL	16V 10MF M 3528 TS
C41	HCTBF100MB	C CHIP TANTAL	16V 10MF M 3528 TS
C42	HCTBF100MB	C CHIP TANTAL	16V 10MF M 3528 TS
C43	HCTBF100MB	C CHIP TANTAL	16V 10MF M 3528 TS
C5	HCFK104ZCA	C CHIP CERA	50V Y5V 0.1MF Z 2012
C6	HCQK100JCA	C CHIP CERA	50V CH 10PF Z 2012
C7	HCFK104ZCA	C CHIP CERA	50V Y5V 0.1MF Z 2012
C8	HCFK104ZCA	C CHIP CERA	50V Y5V 0.1MF Z 2012
C813	HCQK102JCA	C CHIP CERA	50V CH 1000PF J 2012
C9	HCFK104ZCA	C CHIP CERA	50V Y5V 0.1MF Z 2012
CA01	9970800035	CABLE SIGNAL AS	15P+15P/DDC=1.5M(GY275A)
CN1	9979220020	CONN WAFER	SMAW250-05 (ANGLE)
CN1A	9970750034	CONN AS	SMH250+5264-5+1007#24=110
CN2	9979220024	CONN WAFER	SMAW250-09 (ANGLE)
CN2A	9970790107	CONN AS	SMH250-9*2+1007#24=270
CN3	9979220018	CONN WAFER	SMAW250-03 (ANGLE)
CN3A	9970730071	CONN AS	SMH250-3*2+1354#28=250
CN4	9979220021	CONN WAFER	SMAW250-06 (ANGLE)
CN4A	9970760042	CONN AS	SMH250-6*2+2464#24=120
CN5	9979220022	CONN WAFER	SMAW250-07 (ANGLE)
CN5A	9970760043	CONN AS	SMH250+1354#28+OP14A=100
CW1	9979220022	CONN WAFER	SMAW250-07 (ANGLE)
CW2	9979220021	CONN WAFER	SMAW250-06 (ANGLE)
CW3	9979220018	CONN WAFER	SMAW250-03 (ANGLE)
CW4	9979220024	CONN WAFER	SMAW250-09 (ANGLE)
D1	DRLS4148--	DIODE CHIP	RLS4148
D2	DRLS4148--	DIODE CHIP	RLS4148
D3	DRLS4148--	DIODE CHIP	RLS4148
D4	DRLS4148--	DIODE CHIP	RLS4148
D5	DRLZ5R6B-B	DIODE ZENER CHIP	RLZTE-11 5.6B

ELECTRICAL PARTS LIST

LOC	PART-CODE	PART-NAME	PART-DESC
DSUB1	9979200209	D-SUB 15P ANGLE	15P DDC BLUE W/IN SCREW
EF1	5PF1BH471M	FILTER LC	CFI-06-B-1H-471M
IC1	1DWM300---	IC MICOM	W78E58-24
IC1A	9979300500	SOCKET IC	WSDIF-40T
IC2	174HCT4538	IC	74HCT4538D
⚠ INV1	DBA11501--	LCD INVERTER	BAI1501
J001	85801052GY	WIRE COPPER	1/0.52 TIN COATING
J002	85801052GY	WIRE COPPER	1/0.52 TIN COATING
J003	85801052GY	WIRE COPPER	1/0.52 TIN COATING
J004	85801052GY	WIRE COPPER	1/0.52 TIN COATING
J005	85801052GY	WIRE COPPER	1/0.52 TIN COATING
J006	85801052GY	WIRE COPPER	1/0.52 TIN COATING
J007	85801052GY	WIRE COPPER	1/0.52 TIN COATING
J008	85801052GY	WIRE COPPER	1/0.52 TIN COATING
J009	85801052GY	WIRE COPPER	1/0.52 TIN COATING
J010	85801052GY	WIRE COPPER	1/0.52 TIN COATING
J011	85801052GY	WIRE COPPER	1/0.52 TIN COATING
JACK1	9979100010	JACK DC	POWER JACK 6.5PIE 14.5*9
L1	HFFTB2601B	COIL CHIP BEAD	TB321611Z260
L10	HFFTB2601B	COIL CHIP BEAD	TB321611Z260
L11	HFFTB2601B	COIL CHIP BEAD	TB321611Z260
L12	HFFTB2601B	COIL CHIP BEAD	TB321611Z260
L13	HFFTB2601B	COIL CHIP BEAD	TB321611Z260
L15	HFFTB2601B	COIL CHIP BEAD	TB321611Z260
L16	HFFTB2601B	COIL CHIP BEAD	TB321611Z260
L2	HFFTB2601B	COIL CHIP BEAD	TB321611Z260
L28	HFFTB2601B	COIL CHIP BEAD	TB321611Z260
L4	HFFTB2601B	COIL CHIP BEAD	TB321611Z260
L5	HFFTB2601B	COIL CHIP BEAD	TB321611Z260
L6	HFFTB2601B	COIL CHIP BEAD	TB321611Z260
L7	HFFTB2601B	COIL CHIP BEAD	TB321611Z260
L8	HFFTB2601B	COIL CHIP BEAD	TB321611Z260
L9	HFFTB2601B	COIL CHIP BEAD	TB321611Z260
LCD	DLM151X2C2	LCD	LM151X2-C2TH
LED1	DSD50GYW--	LED	SD50GYW(GREEN/AMBER)
OUT1	9979220080	CONN WAFER	DBBV-41PJ-1.0SM
OUTA	9970741001	CONN AS	DF-9-41S*2+1571#32=220
Q10	TKTC3875SY	TR CHIP	KTC3875SY(RTK)
Q12	DKDS226RTK	DIODE CHIP	KDS226(RTK)
Q13	DKDS226RTK	DIODE CHIP	KDS226(RTK)
Q14	DKDS226RTK	DIODE CHIP	KDS226(RTK)
Q15	DKDS226RTK	DIODE CHIP	KDS226(RTK)
Q16	DKDS226RTK	DIODE CHIP	KDS226(RTK)
Q17	DKDS226RTK	DIODE CHIP	KDS226(RTK)

LOC	PART-CODE	PART-NAME	PART-DESC
Q2	TKTC3875SY	TR CHIP	KTC3875SY(RTK)
Q3	TKTC3875SY	TR CHIP	KTC3875SY(RTK)
Q4	1K1A7805P1	IC REGULATOR	KIA7805API
Q5	TKTC3875SY	TR CHIP	KTC3875SY(RTK)
Q6	TKTC3875SY	TR CHIP	KTC3875SY(RTK)
Q7	1KA7542---	IC VOTAGE DETECTOR	KA7542
Q8	DKDS226RTK	DIODE CHIP	KDS226(RTK)
Q9	TKTC3875SY	TR CHIP	KTC3875SY(RTK)
R001	RD-AZ472J-	R CARBON FILM	1/6 4.7K OHM J
R002	RD-AZ472J-	R CARBON FILM	1/6 4.7K OHM J
R003	RD-AZ472J-	R CARBON FILM	1/6 4.7K OHM J
R1	HRFT472JCA	R CHIP	1/10 4.7K OHM J 2012
R10	HRFT102JCA	R CHIP	1/10 1K OHM J 2012
R11	HRFT101JCA	R CHIP	1/10 100 OHM J 2012
R12	HRFT104JCA	R CHIP	1/10 100K OHM J 2012
R13	HRFT474JCA	R CHIP	1/10 470K OHM J 2012
R14	HRFT103JCA	R CHIP	1/10 10K OHM J 2012
R15	RD-2Z101J-	R CARBON FILM	1/2 100 OHM J
R16	HRFT105JCA	R CHIP	1/10 1M OHM J 2012
R17	HRFT105JCA	R CHIP	1/10 1M OHM J 2012
R18	HRFT472JCA	R CHIP	1/10 4.7K OHM J 2012
R19	HRFT472JCA	R CHIP	1/10 4.7K OHM J 2012
R2	HRFT220JCA	R CHIP	1/10 22 OHM J 2012
R20	HRFT472JCA	R CHIP	1/10 4.7K OHM J 2012
R22	HRFT472JCA	R CHIP	1/10 4.7K OHM J 2012
R23	HRFT473JCA	R CHIP	1/10 47K OHM J 2012
R3	HRFT472JCA	R CHIP	1/10 4.7K OHM J 2012
R32	HRFT000JCA	R CHIP	1/10 0 OHM J 2012
R34	HRFT220JCA	R CHIP	1/10 22 OHM J 2012
R35	HRFT220JCA	R CHIP	1/10 22 OHM J 2012
R36	HRFT102JCA	R CHIP	1/10 1K OHM J 2012
R4	HRFT472JCA	R CHIP	1/10 4.7K OHM J 2012
R40	HRFT472JCA	R CHIP	1/10 4.7K OHM J 2012
R400	HRFT362JCA	R CHIP	1/10 3.6K OHM J 2012
R401	HRFT362JCA	R CHIP	1/10 3.6K OHM J 2012
R41	HRFT472JCA	R CHIP	1/10 4.7K OHM J 2012
R5	HRFT220JCA	R CHIP	1/10 22 OHM J 2012
R51	HRFT513JCA	R CHIP	1/10 51K OHM J 2012
R52	HRFT512JCA	R CHIP	1/10 5.1K OHM J 2012
R53	HRFT512JCA	R CHIP	1/10 5.1K OHM J 2012
R55	HRFT103JCA	R CHIP	1/10 10K OHM J 2012
R6	HRFT472JCA	R CHIP	1/10 4.7K OHM J 2012
R7	HRFT101JCA	R CHIP	1/10 100 OHM J 2012
R8	HRFT472JCA	R CHIP	1/10 4.7K OHM J 2012

LOC	PART-CODE	PART-NAME	PART-DESC
R801	HRFT750JCA	R CHIP	1/10 75 OHM J 2012
R811	HRFT750JCA	R CHIP	1/10 75 OHM J 2012
R821	HRFT750JCA	R CHIP	1/10 75 OHM J 2012
R9	HRFT102JCA	R CHIP	1/10 1K OHM J 2012
R92	HRFT302JCA	R CHIP	1/10 3K OHM J 2012
RP1	HFFH4H300E	COIL CHIP BEAD	HB-4H3216-300JT
RP10	HFFH4M121E	COIL CHIP BEAD	HB-4M3216-121JT
RP12	HFFH4M121E	COIL CHIP BEAD	HB-4M3216-121JT
RP13	HFFH4M121E	COIL CHIP BEAD	HB-4M3216-121JT
RP2	HFFH4H300E	COIL CHIP BEAD	HB-4H3216-300JT
RP3	HFFH4H300E	COIL CHIP BEAD	HB-4H3216-300JT
RP4	HFFH4H300E	COIL CHIP BEAD	HB-4H3216-300JT
RP5	HFFH4H300E	COIL CHIP BEAD	HB-4H3216-300JT
RP7	HFFH4M121E	COIL CHIP BEAD	HB-4M3216-121JT
RP8	HFFH4M121E	COIL CHIP BEAD	HB-4M3216-121JT
RP9	HFFH4M121E	COIL CHIP BEAD	HB-4M3216-121JT
RW2	RS01Z330J-	R M-OXIDE FILM	1W 33 OHM J (TAPPING)
S001	5S50101Z01	SW TACT	KPT-1115VM 1C-1P
S002	5S50101Z01	SW TACT	KPT-1115VM 1C-1P
S003	5S50101Z01	SW TACT	KPT-1115VM 1C-1P
S004	5S50101Z01	SW TACT	KPT-1115VM 1C-1P
S005	5S50101Z01	SW TACT	KPT-1115VM 1C-1P
S006	5S50101Z01	SW TACT	KPT-1115VM 1C-1P
SC1	HCTEJ220MC	C CHIP TANTAL	35V 22MF M 7343
SC10	HCTED221MC	C CHIP TANTAL	10V 220MF M 7343
SC11	HCTED221MC	C CHIP TANTAL	10V 220MF M 7343
SC12	HCTED221MC	C CHIP TANTAL	10V 220MF M 7343
SC13	HCTED221MC	C CHIP TANTAL	10V 220MF M 7343
SC18	HCTEJ220MC	C CHIP TANTAL	35V 22MF M 7343
SC2	HCTEJ220MC	C CHIP TANTAL	35V 22MF M 7343
SC20	HCTBF100MB	C CHIP TANTAL	16V 10MF M 3528 TS
SC21	HCFF105ZEA	C CHIP CERA	16V Y5V 1MF Z 3216
SC3	HCTBF479MB	C CHIP TANTAL	16V 4.7MF M 3528
SC4	HCFK104ZCA	C CHIP CERA	50V Y5V 0.1MF Z 2012
SC5	HCFK104ZCA	C CHIP CERA	50V Y5V 0.1MF Z 2012
SC6	HCFK103ZCA	C CHIP CERA	50V Y5V 0.01MF Z 2012
SC7	HCFK103ZCA	C CHIP CERA	50V Y5V 0.01MF Z 2012
SC8	HCFF105ZEA	C CHIP CERA	16V Y5V 1MF Z 3216
SD1	DKDS181RTK	DIODE CHIP	KDS181(RTK)

LOC	PART-CODE	PART-NAME	PART-DESC
SD2	DSK14-----	DIODE SCHOTTKY	SK14
SD3	DSK14-----	DIODE SCHOTTKY	SK14
SL1	HLC220M00E	L CHIP COIL	22UH M (BA220)
SL2	HLC220M00E	L CHIP COIL	22UH M (BA220)
SQ1	TFDS6930A-	FET CHIP	FDS6930A
SQ2	TFDS6930A-	FET CHIP	FDS6930A
SQ3	1K1A78L05F	IC REGULATOR CHIP	KIA78L05F(RTF)
SQ6	TNDS9435A-	FET CHIP	NDS9435A
SQ7	T2N3904SRT	TR CHIP	2N3904S(RTK)
SQ8	1K1A78L05F	IC REGULATOR CHIP	KIA78L05F(RTF)
SR1	HRFT104JCA	R CHIP	1/10 100K OHM J 2012
SR10	HRFT220JCA	R CHIP	1/10 22 OHM J 2012
SR14	HRFT104JCA	R CHIP	1/10 100K OHM J 2012
SR15	HRFT104JCA	R CHIP	1/10 100K OHM J 2012
SR16	HRFT113JCA	R CHIP	1/10 11K OHM J 2012
SR2	HRFT103JCA	R CHIP	1/10 10K OHM J 2012
SR3	HRFT103JCA	R CHIP	1/10 10K OHM J 2012
SR4	HRFT104JCA	R CHIP	1/10 100K OHM J 2012
SR5	HRM1407JPD	R CHIP METAL PLATE	1W 0.04 OHM J 8340
SR6	HRM1207JPD	R CHIP METAL PLATE	1W 0.02 OHM J 8340
SU1	1SB3052P--	IC	SB3052P(SSOP-28)
U015	1M62393P--	IC DAC	M62393P
U017	1TDA8752AH	IC ADC	TDA8752AH/8
U019	1TC74ACT14	IC	TC74ACT14FN
U1	1MX88281FC	IC LCD CONTROLLER	MX88281FC
U10	1TC74ACT57	IC	TC74ACT573FT(EL)
U11	1TC74ACT57	IC	TC74ACT573FT(EL)
U12	1TC74ACT57	IC	TC74ACT573FT(EL)
U16	1AT24C21--	IC EEPROM	AT24C21
U2	1ZRC250N80	IC	ZRC250N802
U3	1KM416S102	IC SDRAM	KM416S1020CT-G8
U4	1KM416S102	IC SDRAM	KM416S1020CT-G8
U5	1KM416S102	IC SDRAM	KM416S1020CT-G8
U6	1AT24C1610	IC	AT24C16-10PC
U7	1DW0SD05--	IC OSD	DWOSD05
U8	TNDS9958--	FET CHIP	NDS9958
U9	1TC74ACT57	IC	TC74ACT573FT(EL)
Y1	5XJ14R318F	CRYSTAL QUARTZ	HC-49/S 14.31818MHZ 50PPM
Y2	5XJ11R059E	CRYSTAL	HC-49/S 11.0592MHZ 30PPM